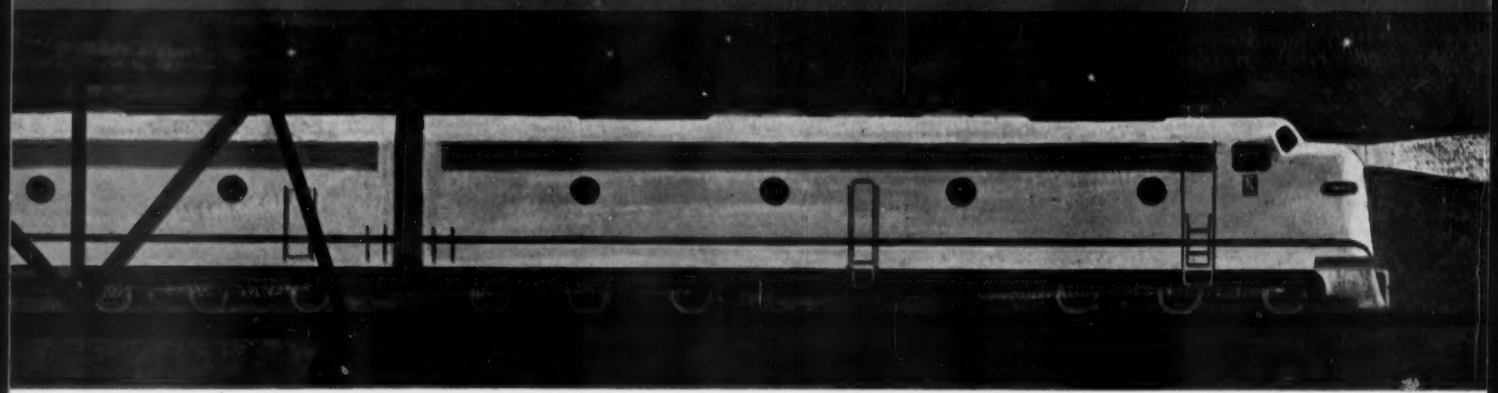
DECEMBER 20, 1954

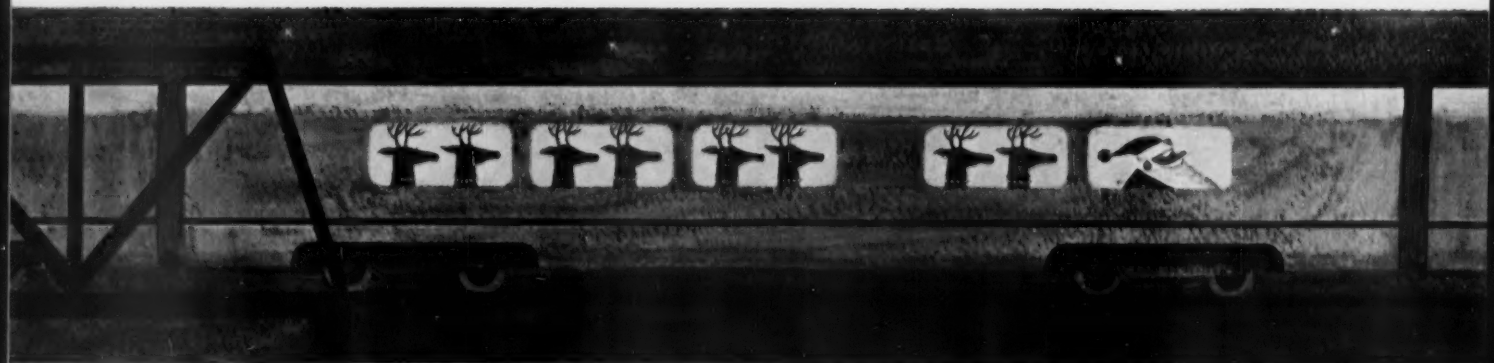
Realistic Rate Making . . . p. 25

RAILWAY AGE

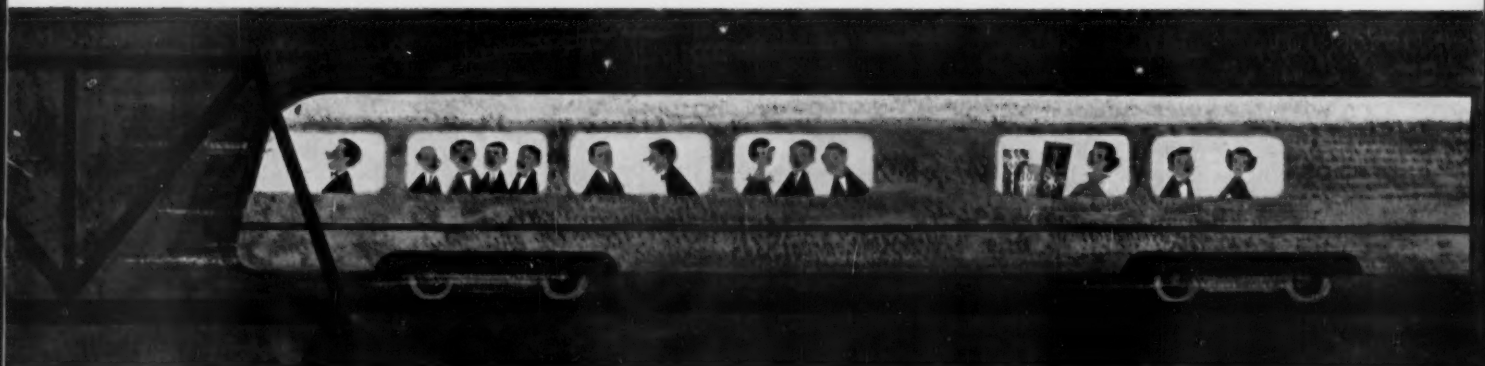
One of Five Simmons-Boardman Railway Publications



SEASON'S GREETINGS AND BEST WISHES FOR THE NEW YEAR TO



ALL RAILROADERS WHO MAKE CHRISTMAS BRIGHT BY BRINGING



FOLKS AND GIFTS TO THEIR DESTINATIONS ON TIME

ELECTRO-MOTIVE DIVISION · GENERAL MOTORS

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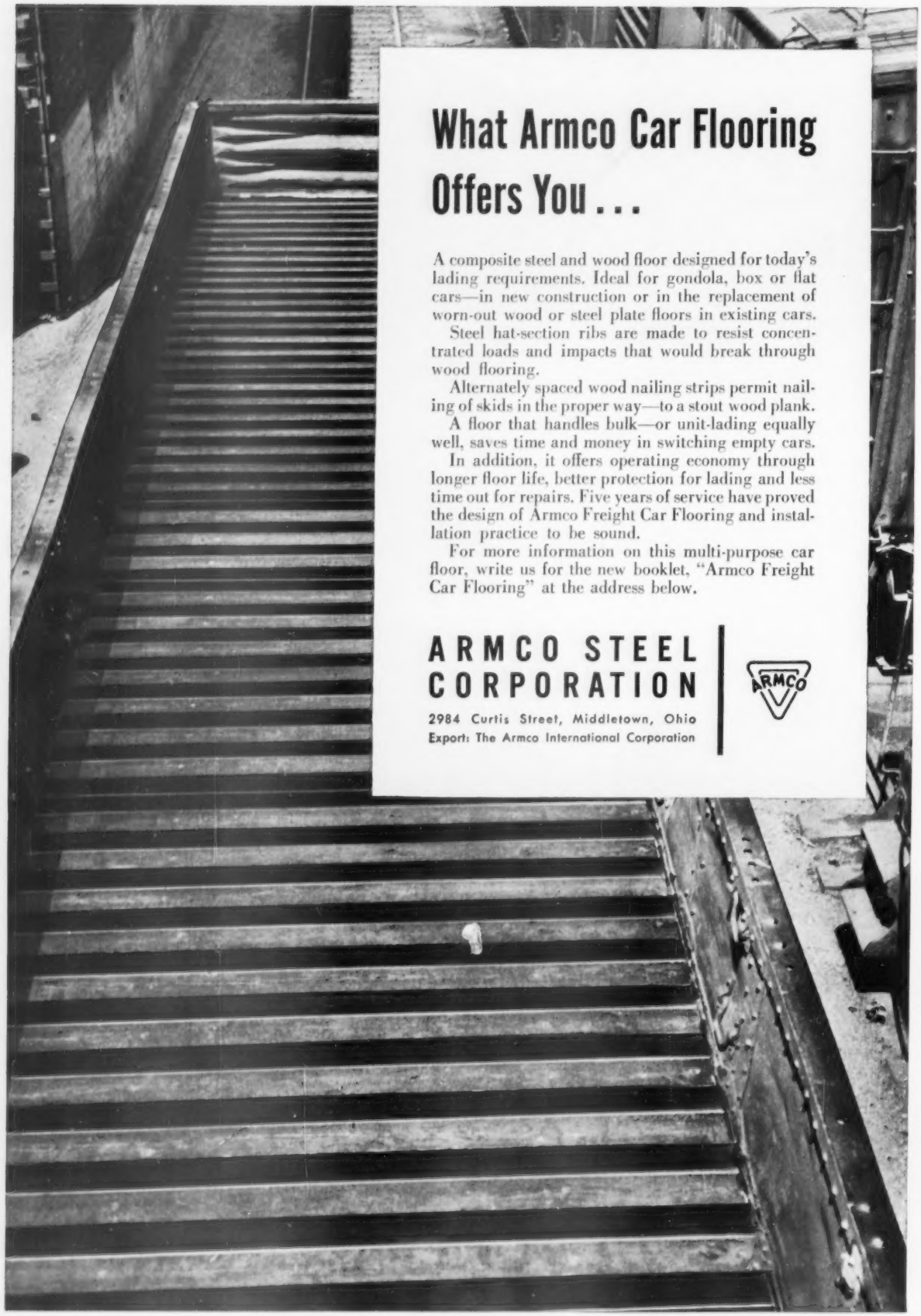

What Armco Car Flooring Offers You . . .

A composite steel and wood floor designed for today's lading requirements. Ideal for gondola, box or flat cars—in new construction or in the replacement of worn-out wood or steel plate floors in existing cars.

Steel hat-section ribs are made to resist concentrated loads and impacts that would break through wood flooring.

Alternately spaced wood nailing strips permit nailing of skids in the proper way—to a stout wood plank.

A floor that handles bulk—or unit-lading equally well, saves time and money in switching empty cars.

In addition, it offers operating economy through longer floor life, better protection for lading and less time out for repairs. Five years of service have proved the design of Armco Freight Car Flooring and installation practice to be sound.

For more information on this multi-purpose car floor, write us for the new booklet, "Armco Freight Car Flooring" at the address below.

ARMCO STEEL CORPORATION

2984 Curtis Street, Middletown, Ohio
Export: The Armco International Corporation

ARMCO

ACF's Berwick, Pa., plant is building 200 of these subway cars for New York City. Principal underframe members are of Mayari R high-strength, low-alloy steel.

Underframes for 200 ACF-built subway cars made lighter with **Mayari R**

If you've ever boarded a rush-hour subway train in New York City, you've seen a vivid example of the need for strength in passenger car construction. And, as a railroad man, you also hold light weight in high regard.

These two qualities logically led to the selection of Mayari R high-strength, low-alloy steel for the key underframe members in the 200 new cars now being built by ACF Industries for the New York City Transit Authority. Side sills, center sills, and side sill reinforcing components are of Mayari R channels, ship channels and bulb angles. With 50 pct higher yield point than structural carbon steel, these Mayari R sections were used in lighter thicknesses to hold down weight while maintaining the strength needed in the underframe.

Mayari R's physical characteristics make it a highly useful and versatile material, ideal for many railroad applications. Its resistance to atmospheric-corrosion, for example, is five to six times that of plain carbon steel. It can take more batter, abrasion and impact. Holds paint up to 80 pct longer, depending on the kind of paint used. Can be readily welded and worked, without special equipment or techniques.

The Mayari R story is fully outlined in our new Catalog 353. It's an interesting story, with immediate or potential value for you. Get in touch with the nearest Bethlehem sales office for a copy.

Mayari R center sill channel being positioned on the inverted underframe, after which it will be welded permanently into place.

BETHLEHEM STEEL COMPANY
BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

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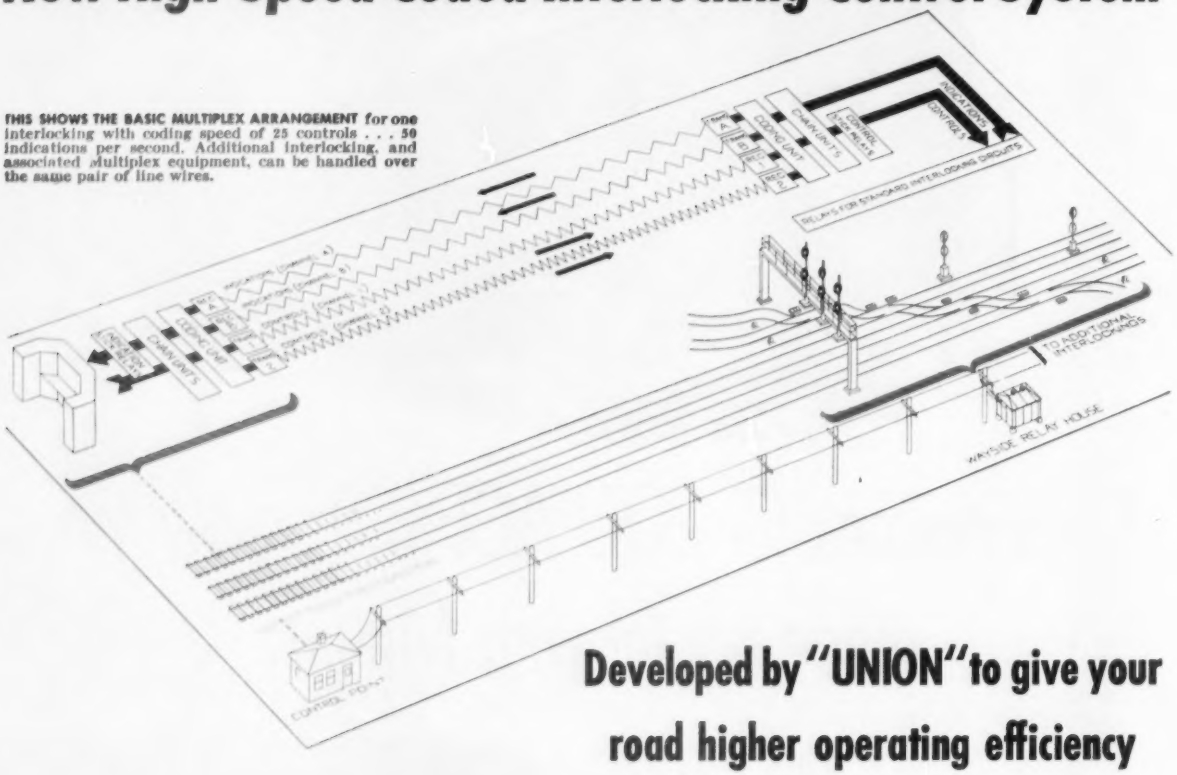
Mayari R *makes it lighter... stronger... longer lasting*

New High-Speed Coded Interlocking Control System



THIS SHOWS THE BASIC MULTIPLEX ARRANGEMENT for one interlocking with coding speed of 25 controls . . . 50 indications per second. Additional interlocking, and associated Multiplex equipment, can be handled over the same pair of line wires.

Developed by "UNION" to give your road higher operating efficiency

"UNION" Multiplex Code Control System

THE MULTIPLEX CODE CONTROL SYSTEM uses standard Style C or UR control machines.

NEW MOVIE AVAILABLE

entitled, *"AT THIS MOMENT"*—showing a vivid story of modern railroad progress. Length 26 minutes, on 16 mm. color sound film. For use of film write: United World Films, Inc., 1445 Park Ave., New York or Association Films, Inc., 347 Madison Ave., New York.

ARE you planning to build a new remotely-controlled interlocking . . . modernize an older one . . . or consolidate present interlockings for greater economies? If you are, consider these features of the new "Union" Multiplex Code Control System:

It's the fastest all-relay coded interlocking control system yet developed.

Basic system transmits 25 controls and 50 indications per second. Can be expanded in multiples of 25 controls and 50 indications per second, such as 50 and 100 per second . . . 75 and 150 per second . . . *simultaneously* over one pair of line wires.

Each code can contain complete control and indication information for all functions at the interlocking . . . therefore a complete route can be set up with one code.

The "Union" Multiplex Code Control System is designed especially for large and busy interlockings. May we tell you the rest of the story?

UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

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December 20, 1954 — **Vol. 137, No. 25**

Week at a Glance

Where's the point to begin in rationalizing rates? A recent speech by Jervis Langdon, Jr., advances the thought that any form of transportation should be permitted to make rates competitive with any other form—provided such competitive rates are in themselves compensatory. This week's "Forum," agreeing in general with Mr. Langdon's views, suggests that the initiative, at least, in realistic rate making, lies with the railroads. 7, 25

Essentially the same basic idea—that "regulatory policy be revised consistent with competitive realities," perhaps in such a way as to permit "prices based upon inherent economic characteristics" so "management will have full and fair opportunity to take proper advantage of its respective capabilities"—was advanced last week by Robert B. Murray, Jr., undersecretary of commerce for transportation. 7

A long spur—built to serve a new copper mine—has been successfully completed by the DSS&A, despite some unusual and seemingly almost insurmountable construction problems. 26

The PRR cleans cars better—and in one-third the time—by using high-pressure hot water heated by a portable steam generator. 28

Safety is a family affair on the Frisco—where the program reaches through men's jobs to homes, families and communities, with good results for all concerned. 30

The SP rebuilt its oldest diesel—once SF-1; now 6017—for many thousand miles of trouble-free service. 33

BRIEFS

Persistent and apparently widespread reports that General Motors Corporation will soon build a light-

Home for Christmas ... safe and sound

THIS is the time of year for every railroad man to stand up and take a well deserved bow. For now, during the holiday season, you *see* the faith that America's people have in our railroads.

You see the tens of thousands of men, women and children who are coming home for Christmas by train. You can sense their feeling of security as they go by rail.

It is you who are responsible for their confidence. For by demanding the finest in equipment and safety, you are assuring that the railroads will remain the foremost transportation system in America.

Best wishes of the Season

Westinghouse Air Brake Company

AIR BRAKE DIVISION

WILMERDING, PA.

Current Statistics

Operating revenues, ten months	
1954	$7,779,882,274
1953	9,016,553,959
Operating expenses, ten months	
1954	$6,158,779,123
1953	6,780,942,483
Taxes, ten months	
1954	$ 740,059,728
1953	1,085,573,098
Net railway operating income, ten months	
1954	$ 671,488,608
1953	952,692,110
Net income, estimated, ten months	
1954	$ 472,000,000
1953	740,000,000
Average price railroad stocks	
December 14, 1954	81.23
December 15, 1953	58.11
Carloadings, revenue freight	
Forty-nine weeks, 1954	32,006,402
Forty-nine weeks, 1953	36,549,782
Average daily freight car surplus	
December 11, 1954	36,003
December 12, 1953	76,333
Average daily freight car shortage	
December 11, 1954	292
December 12, 1953	163
Freight cars on order	
November 1, 1954	12,853
November 1, 1953	35,171
Freight cars delivered	
October 1954	1,817
October 1953	8,727
Average number of railroad employees	
Mid-November 1954	1,035,382
Mid-November 1953	1,188,024

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Week at a Glance CONTINUED

weight train for test by eastern railroads have again been denied by the corporation's Electro-Motive Division. A spokesman for that division told *Railway Age* last week that E-MD has had inquiries about design of motive power for such a train and that its engineers have discussed features of a train's general design, but added that: "As to building such a train, there is nothing we can add to Mr. Dezendorf's previous statement" (*Railway Age*, November 22, page 10).

Pegging commuter fares to the cost of living is under consideration by the New Haven, Patrick B. McGinnis, president, said last week. The New Haven, he added, is willing to keep commutation rates at their present level until such a plan is worked out.

Taking independent action, the Lackawanna, beginning January 1, no longer will exact from lcl shippers the 10¢ per cwt plus charge for pickup and delivery service.

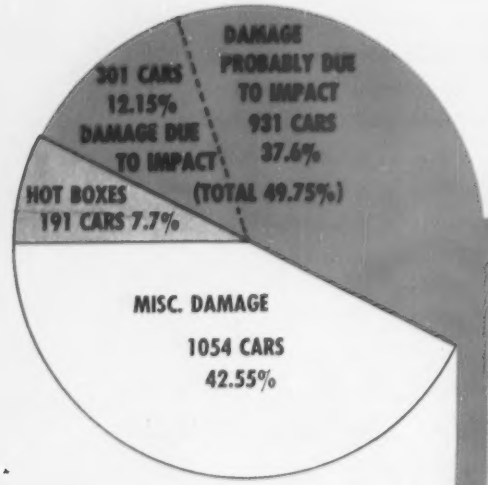
The Order of Railway Conductors & Brakemen has agreed to accept findings of the emergency board in the Pullman case, and has stated that it will try to negotiate an agreement with the Pullman Company "along that line." The company has previously announced its acceptance of the board's report.

Authority to impose "community-protection" conditions in railroad abandonment cases has been disclaimed by the ICC. The disclaimer came in an order in Finance Docket No. 18245, a Boston & Maine case. The order denied a petition asking that the road "be required to pay damages to abutting towns from the funds it would realize by the abandonment."

That recently announced order of diesel locomotives for the Soo Line and the Wisconsin Central (*Railway Age*, November 8, page 13) will fully dieselize the Soo system, it is now revealed. When the new units are delivered, the 4,100-mi system will have a total of 201.

Cut Car-Repair Costs?

Analysis of crippled-car reports says YES!



Careful check of reports on 2477 bad-order cars indicates that roughly 50% of running repairs result from damage definitely or probably caused by excessive impact. Much of this damage can be prevented.

ANALYSIS OF CAUSES OF DAMAGE

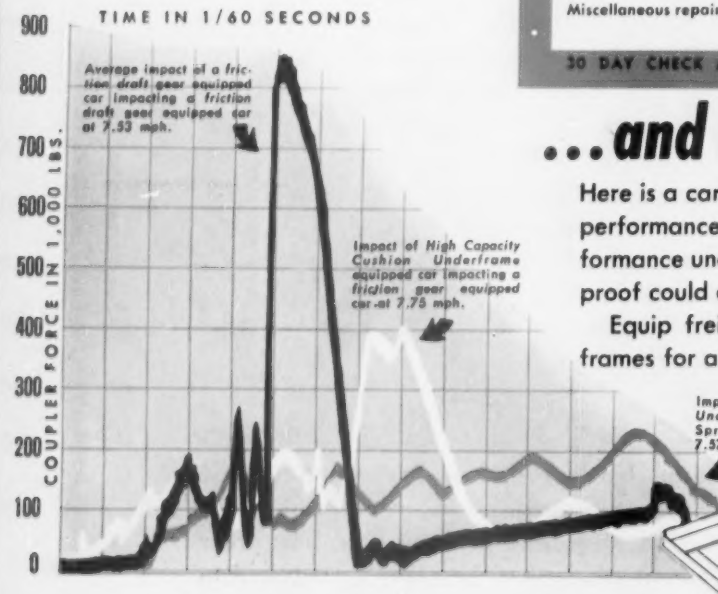
Total number of orders handled in shop (railroad owned cars and foreign cars) over 30 day period 2,477.

	No. of Cars	Per Cent
Repairs definitely due to excessive impact	301	12.15%
Repairs probably due to excessive impact	931	37.6%
Repairs due to hot-boxes	191	7.7%
Miscellaneous repairs	1,054	42.55%

30 DAY CHECK MADE JANUARY 1954

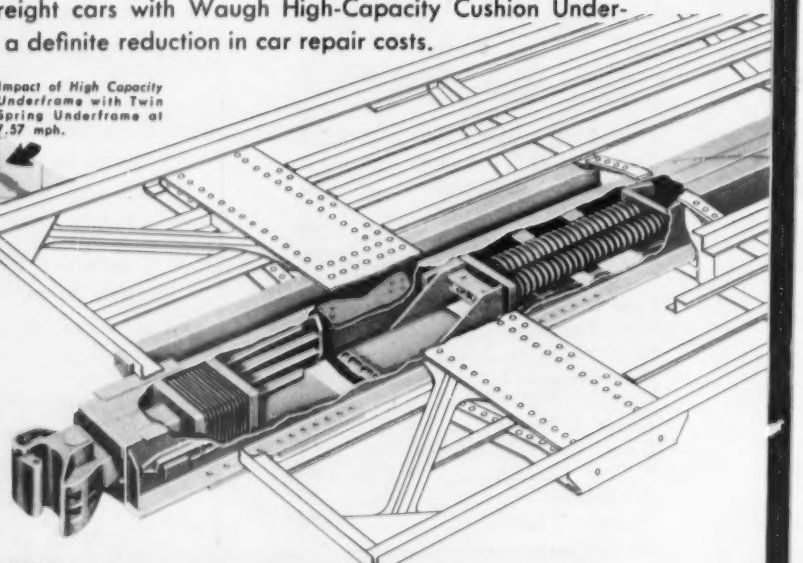
Surveys have shown that almost 80% of classification yard impacts are at speeds in excess of closing speeds for conventional draft gears and that more than 60% are in the range of 5 to 10 mph., a range in which the Waugh High-Capacity Cushion Underframe provides a high degree of protection.

...and oscillograms tell HOW!


TIME IN 1/60 SECONDS
COUPLER FORCE IN 1,000 LBS.
900
800
700
600
500
400
300
200
100
0
Average impact of a friction draft gear equipped car impacting a friction draft gear equipped car at 7.53 mph.
Impact of High Capacity Cushion Underframe equipped car impacting a friction gear equipped car at 7.75 mph.
Impact of High Capacity Underframe with Twin Spring Underframe at 7.57 mph.

Here is a carefully-instrumented comparative record of friction gear performance and Waugh High-Capacity Cushion Underframe performance under identical test conditions. What greater performance proof could one ask?

Equip freight cars with Waugh High-Capacity Cushion Underframes for a definite reduction in car repair costs.



WAUGH

HIGH CAPACITY

Cushion Underframe

WAUGH EQUIPMENT COMPANY 420 Lexington Ave., New York 17, N. Y.

CHICAGO · ST. LOUIS · CANADIAN WAUGH EQUIPMENT COMPANY, MONTREAL

What About "Competitive Rights"?

Each form of transport should be free to publish rates to meet competition of another form, says Langdon

The possibility that railroads may find it necessary "to sponsor legislation to clarify their rights as competitors" was strongly emphasized by Jervis Langdon, Jr., chairman of the Association of Southeastern Railroads, in an address to the Third New England Institute of Transportation, sponsored by the Transportation Association of America at Boston December 10.

As the basis for his argument, Mr. Langdon took the "suggestion" that each form of transportation "be free to publish rates to meet the competition of another form," subject only to the condition that such competitive rates be "compensatory." That, he explained, would mean that competitive rates "should fully cover out-of-pocket expenses of handling the traffic and make a contribution to overhead or constant expenses," so the carrier would be "better off by moving the traffic than by not moving it."

At present, he pointed out, "in many instances where railroads are faced with competition between certain points only and relief under Section 4 [of the Interstate Commerce Act] is appropriate, they cannot meet that competition by providing competitive rates based on their own railroad costs. On the contrary, railroad rates are held up by the full costs of using [competitive] water service plus a stiff differential which is added whether railroad service is more valuable or not.

"This inability to publish competitive railroad rates based on railroad costs under Section 4 would not be so serious if such rates could unquestionably be established under Section 1. But recent decisions of the [Interstate Commerce] commission throw much doubt on this. . . . Even though proposed rates are proven to be compensatory they may still be condemned because promising to attract 'more than a fair share' of available traffic or 'lower than necessary to meet competition' or otherwise constituting what the commission believes to be 'unfair or destructive competition'."

No Fixed Standard — "One will search in vain," Mr. Langdon continued, "for a fixed standard to be used in review of competitive rates proposed to meet competition of other forms of transportation. In a few instances, the relationship between those rates and transportation costs has been developed, but the commission has apparently been more influenced by the effect which it believes the proposed rates would have on the competing mode of transportation."

If the absence of any "fixed standard" for approval of competitive rates forces railroads to sponsor legislation to clarify their competitive rights, he suggested that they might advance "the following reasons, among others";

- "The railroad industry cannot be permitted to slide quietly into government ownership and control without having been given the chance to save itself through competition, subject to a floor of costs.
- "For measuring inherent advantages

MURRAY REPORTS ON PRESIDENTIAL INTEREST IN "SOUND, VIGOROUS RAILROAD SYSTEM"

In view of the Commerce Department's work on the report of President Eisenhower's Cabinet Committee on Transport Policy, there was considerable interest in remarks on the railroad situation which were made in a recent address by Robert B. Murray, Jr., under secretary of commerce for transportation. The address was delivered before the Detroit Traffic Club and in it Mr. Murray said in part:

"The keen interest of this administration in transportation is exemplified by the President's establishment of a cabinet committee to review this subject . . . The results of this committee's study will soon be available . . . I am confident that the cabinet committee's report will represent a major step forward toward the goal we all seek—a healthy, privately-owned, modern transportation system.

"There is no question that the executive branch has a direct and continuing interest in the maintenance and development of a sound, vigorous railroad system as one of the major components in our economic strength and defense preparedness.

"All of us are aware of the fact that railroad traffic volume and earnings are down sharply. Certain other agencies of common carrier transport have also experienced adverse income trends during 1954. But the rail decline is especially serious: this industry has seen its share of total intercity traffic drop off year after year.

"This situation is taking place despite our high level of economic activity.

"I would like to mention briefly my personal views on this development. I know of no field in which there is keener competition today than that of transportation. Notwithstanding this fact, we find that many of our federal transportation policies—especially as they affect the railroads—stem basically from the transportation system as it existed many years ago when the railroads had virtually a monopoly position.

"These outmoded and unrealistic regulatory policies seriously impede railroad progress. In the face of a severe competitive situation, they limit the carriers' ability to go after available traffic and compete on the basis of their own inherent advantages. Volume is the railroads' greatest problem and lack of it in turn has a serious adverse effect upon earnings. Low earnings make it impossible to attract new equity capital needed for continuing improvement—to provide up-to-date facilities and equipment able to produce a better service at lower cost.

"In the final analysis, the best transportation for the user, the producer, the investor and the taxpayer is that which permits the employment, according to the choice of the shipper or traveler, of the kind of transportation he desires at the lowest true economic costs.

"Under existing regulatory restraints, however, the carriers are prevented from establishing prices based upon inherent economic characteristics and obtaining traffic which they might best be suited to handle. When a regulatory policy requires the regulatory agency to substitute its judgment for that of the carrier, it inevitably dilutes managerial incentive to engage in price and service experimentation.

"Thus, in my opinion, there is a vital need at this time for a modernization of basic regulatory policies. Once regulatory policy is revised consistent with the competitive realities of today's transportation system, management will have full and fair opportunity to take proper advantage of its respective capabilities, so that the best possible transportation can, in fact, be provided at the lowest cost."

of various forms of transportation, there is no better yardstick than their respective cost levels, and for this reason there should be no qualification upon the right to base their rates upon such costs.

● "No agency of government can possibly be wise enough to effect, through its control of competitive rates, a 'fair' distribution of traffic among competing forms of transportation. All any such agency can do is to examine proposed rates to make sure . . . they cover costs of sponsoring carriers.

● "Opposition based on fear that competitive railroad rates will hurt other modes of transportation cannot be taken seriously because such opposition would necessarily imply that the other modes are today in operation only because railroads have not been allowed to meet their competition with rates based on railroad costs. . . . The government has not protected marginal railroad operations from . . . competition with other forms of transportation.

● "If the railroads need legislation, they apparently will have the support of important shippers."

Government Policies Criticized—Other speakers before the institute, representing shippers, investors and different forms of transportation, sharply criticized government policies, regulations and taxes which they said "are irreparably weakening the transportation system of the country and require legislative action immediately."

Government agencies, said Richard L. Bowditch, president of the U.S. Chamber of Commerce, "should make it a definite policy to rely on commercial transport facilities for their primary transportation needs. Exceptions should be limited closely by specific policy. [They] should also make it a definite policy to pay the same rates and fares as are applicable to the general public."

Excise taxes on transportation were described by C. J. Goodyear, traffic manager of the Philadelphia & Reading Coal & Iron Co. and president of the American Society of Traffic & Transportation, as "a burden on the users, who can least afford them, and an inflationary factor in the cost of living."

H. E. Bixler, assistant to president of the Boston & Maine, and Ralph W. Vose, vice-president of the St. Johnsbury Trucking Company, agreed that their "bogey" was not so much competition from each other as "competition from unregulated competitors who skim the cream of transportation hauls and leave the remainder for those who are required by law to handle all types of traffic." They characterized New England, with its short hauls and high terminal costs, as "especially vulnerable" in this regard.

Interstate Commerce Commission's Bureau of Transport Economics and Statistics and published in the bureau's "Monthly Comment." The bureau noted that the 3% increase in 1953 over 1952 compared with a decline of 1.5% in the revenue ton-miles of Class I line-haul railroads. At the same time it warned that, "as the motor figure is preliminary, some caution should be exercised in its use."

The bureau's compilation carried the motor figures back to 1939, when the total was 19.6 billion ton-miles. That included 14.9 billion for common carriers and 4.7 billion for contract truckers.

Last year's 73 billion included 65.1 billion for common carriers and 7.9 billion for contract truckers.

Bus Traffic—The compilation also had bus-traffic estimates. Those indicated that 19.7 billion passenger-miles were performed last year in regular-route, scheduled, intercity services of intercity and local bus lines. That compared with 1952's 21.2 billion passenger-miles.

The bureau pointed out that 1953 was the first year since 1941 in which this bus traffic fell below 20 billion ton-miles. Percentagewise, the drop under 1952 was 7%, which compared with a 4.1% decrease in rail coach business, excluding commutation.

Competitive Transport

Western Roads Answer Riss

Twenty-three carriers file counterclaims for damages of $100 million against trucking company

Twenty-three western railroads last week filed counterclaims for damages of $100 million against the Kansas City trucking firm of Riss & Co.

The counterclaim case was filed in U. S. District Court in Washington, D. C. It was the railroads' answer to the $90-million damage suit which Riss filed against 85 railroads and four railroad associations last September (*Railway Age*, September 27, page 7).

Charging that Riss has engaged in illegal and unauthorized operations for at least 12 years, the rail carriers said such operations have deprived them of revenues believed to be in excess of $100 million.

In addition to the 23 carriers seeking damages, nine other railroads last week filed answers to the Riss charges. All 32 carriers denied Riss allegations that they conspired, combined and attempted to restrain and monopolize land transportation.

The railroads told the court that, beginning in or before 1940, Riss & Co. had engaged in interstate transportation of certain articles, especially munitions and explosives, without lawful authority. They said that any loss of traffic or other damage which Riss has suffered has been caused wholly by ICC orders requiring Riss to cease and desist from illegal operations.

The rail carriers also charged that Riss for many years has "frequently, consistently and flagrantly" violated laws and regulations of states in which it transports explosives and other freight. They said the trucking firm ran up 4,349 violations of the ICC hours-of-service regulations in the 21-month period from January 1950 to September 1951.

Motor Carrier '53 Traffic Estimated by ICC Bureau

Intercity truckers reporting to the Interstate Commerce Commission performed 3% more intercity ton-miles of freight service in 1953 than in 1952. The truckers involved are the Class I, II and III common and contract carriers, and their estimated 1953 performance was 73 billion ton-miles as compared with 1952's 70.8 billion.

The estimates were made by the

Injunction Denied in 3-Cent Air Mail Suit

Federal Judge Alexander Holtzoff denied on December 13 a motion by five western roads to enjoin the postmaster general from continuing his three-cent-mail-by-air "experiment" on the Pacific coast.

"In view of the public interest involved," Judge Holtzoff stated, "the balance of convenience clearly predominates" in favor of continuing the tests. The railroad motion was for a preliminary injunction against the postmaster general pending disposition of a parallel move to secure a permanent halt of the program.

This motion for the permanent stay is still pending but it was reported the issue might be brought to a head within a month or six weeks through a railroad petition for summary judgment that the program is illegal.

The court activity was instituted by the Santa Fe, Great Northern, Northern Pacific, Southern Pacific and Union Pacific following inauguration on November 20 of the three-cent-mail-by-air program linking west coast cities between Seattle and San Diego (*Railway Age*, December 6, page 10).

The railroads, represented in District Court at Washington, D. C., by Francis M. Shea, contended that the program is illegal because it does not maintain the Congressionally-mandated distinction between six-cent air mail and the cheaper first-class mail. Edward H. Hickey of the Department of Justice said the distinction is maintained

in the more "expeditious handling" of regular air mail on the ground.

Judge Holtzoff said there was "grave doubt" that the required distinction was not being maintained and there was "some doubt" that the railroads were legally entitled to seek the injunction. Add to this the matter of the "public interest" and his opinion that, while the roads would lose "some profits," they would not suffer in a "major" way, and, he said, he could not grant the preliminary injunction.

Rates & Fares

Piggyback Opposition Continues to Dwindle

Opposition to piggybacking, which dwindled to almost nothing at recent Interstate Commerce Commission hearings (*Railway Age*, October 18, page 8) was further reduced last week as participants in the proceedings filed briefs with the commission.

New York Dock Railway, a Brooklyn terminal, advised the commission that "more mature consideration" of the rail-trailer service revealed "possibilities for good." It went on to say that it was now willing to "seriously explore and entertain" proposals for cooperation with the railroads in the venture.

Five trucking organizations limited their position to that of asking the ICC to make sure t-o-f-c tariffs do not undercut truck rates and that t-o-f-c terminal areas keep within present bounds. The Regular Common Carrier Conference, Central States Motor Freight Bureau, East-Central Motor Carriers Association, Mid-Atlantic Conference and Mid-States Freight Lines, Inc., argued that for the railroads to win lower rates or overly extensive terminal areas would be unfair to competition.

Meanwhile the railroads—the Baltimore & Ohio, Erie, Lackawanna, Nickel Plate, Pennsylvania and Wabash—called on the commission to approve the tariffs. Piggyback, they contended, is a device by which the roads hope to win back the "high-rated traffic" lost in recent years.

They held that the commission's findings in the proceeding instituted by the New Haven to establish basic legal conditions for piggyback "unequivocally affirmed the right of a railroad to perform the rail portion of the movement." The findings, reported in *Railway Age* August 16, page 7, disposed, they said, of "a great many of the issues which have been raised or might conceivably be raised."

The roads stated that motor carriers have constantly been winning a larger portion of intercity traffic since 1948, whereas railroads have been losing. "The survival of the railroads," the brief continued, "depends on their ability and ingenuity in adopting means to arrest this trend."

Tariff Simplifiers Favor Full Routing for All Rates

The Railroads' Tariff Research Group has concluded that "from the standpoint of tariff definiteness, all rates should be subject to complete routing, affirmatively stated."

This was revealed by the group's chairman, Charles S. Baxter, in a December 16 address, at Pittsburgh, before the Allegheny Regional Shippers' Advisory Board and the Pittsburgh Freight Agents' Association. His discussion of the "difficult problem of routing" also included this comment:

Economical Routes—"If traffic is to produce adequate remuneration it must be channelled over economical routes, and many factors have to be considered intelligently in determining which routes are economical and which are not. The determination cannot be left to hit-or-miss guess-work with everybody in the act. . . . We think it is better to go the whole way than to continue on with a hodge-podge consisting of dashes of affirmatively

CHIEF YARD CLERKS of the Southern Pacific visited the equipment service accounts office. . . and the communications department, when they met at San Francisco recently for a refresher course on machine procedures.

SP SCHOOLS CHIEF YARD CLERKS

Chief yard clerks from terminals throughout the Southern Pacific were brought to San Francisco recently for a two-day refresher course on the SP's machine procedures. The course, second held by the SP, was set up by the Methods and Standardization Bureau, headed by N. A. Sorensen.

Purpose of the conference was to give the chief clerks a chance to review and discuss procedures and equipment, as well as to trade ideas on day-to-day problems. Staff officers were present to explain how reports and information from yards is processed in the general office; as shown in the accompanying pictures, the clerks visited the departments which do this work.

Another benefit of the meeting was the opportunity it gave the men to get acquainted with each other and with the procedural problems peculiar to various yards.

The SP began changing over its yards to machine operation, using IBM equipment, in May 1951. This changeover, according to Mr. Sorensen, afforded an excellent opportunity to improve working techniques and, with this in mind, the Methods and Standardization Bureau set up its first meeting of chief yard clerks after 10 yards had been converted. Success of that meeting led to plans for the recent much-larger version.

stated routing and pinches of negatively expressed routing restrictions all mixed with many wide-open spaces with the sky the limit."

The research group is "inclined toward the elimination of routing from rate tariffs and its publication in routing guides to the maximum practical extent," Mr. Baxter added. He went on to say that ultimate solution of the routing problem is tied in with the pending application wherein railroads have asked the Interstate Commerce Commission for general relief from the Fourth Section's long-and-short-haul clause to permit carriers with indirect routes to meet the competition of direct routes, without circuity limitations of any kind.

Alternations—Mr. Baxter also discussed that phase of his group's program which is an undertaking to promote a tariff situation "which results in a single, readily ascertainable rate for every service." And that brought up the present rate-alternations situation, which Mr. Baxter called "a Frankenstein or a Rube Goldberg contraption." His further remarks seemed to carry the implication that this part of the program had been dragging because of shortsightedness on the part of those who oppose rate changes that might be involved.

"Modest rate changes are bound to occur" if there is to be a complete solution of the alternations problem, Mr. Baxter conceded. He then went on to express his personal conviction that both shippers and railroads suffer a net loss from operations of present rate-alternations rules.

"Dollar Foolish"—"I mean," he explained, "that more is spent in responding to their terms than is saved from the lower rates discovered. If that is so all of us who tolerate the situation might have the charge thrown at us that we are 'penny wise and dollar foolish.' Let's not spend five dollars to save one."

Meanwhile, Mr. Baxter reported that the basic phase of the group's program should be completed in 1955. That has involved "creation of a 'blueprint' by which all freight tariffs would be constructed."

Before getting into his discussion of these problems, Mr. Baxter identified the tariff simplification project with the railroads' postwar modernization program for their plant and equipment. The project, he said, "should be recognized as part of the broad program of the railroads to afford better service to the public."

Figures of the Week

Freight Car Loadings

Loadings of revenue freight in the week ended December 11 totaled 653,531 cars, the Association of American Railroads announced on December 16. This was a decrease of 8,266 cars, or 1.2%, compared with the previous week; an increase of 1,580 cars, or 0.2%, compared with the corresponding week last year; and a decrease of 67,811 cars, or 9.4%, compared with the equivalent 1952 week.

Loadings of revenue freight for the week ended December 4 totaled 661,797 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, December 4

District	1954	1953	1952
Eastern	110,004	112,931	123,138
Allegheny	119,339	126,437	144,421
Pocahontas	50,173	48,699	57,557
Southern	123,299	120,937	130,769
Northwestern	79,637	76,029	84,480
Central Western	120,524	119,126	121,968
Southwestern	58,821	57,867	56,991
Total Western Districts	258,982	253,022	263,439
Total All Roads	661,797	662,026	719,324
Commodities:			
Grain and grain products	48,680	44,194	44,354
Livestock	10,125	9,419	11,902
Coal	121,584	116,813	142,663
Coke	8,765	11,531	15,377
Forest products	44,971	42,469	42,030
Ore	17,982	19,114	25,976
Merchandise l.c.l.	61,535	64,555	71,756
Miscellaneous	348,155	353,931	365,266
December 4	661,797	662,026	719,324
November 27	583,515	596,230	670,371
November 20	697,346	725,732	811,073
November 13	708,757	727,058	828,750
November 6	695,097	747,868	829,295
Cumulative total, 49 weeks	32,006,402	36,549,782	36,032,723

In Canada.—Carloadings for the ten-day period ended November 30 totaled 108,438 cars, compared with 79,896 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd. from Connections
Totals for Canada:		
November 30, 1954	108,438	35,839
November 30, 1953	91,950	36,787
Cumulative Totals:		
November 30, 1954	3,392,347	1,301,512
November 30, 1953	3,693,944	1,498,915

EARNINGS—$1.00; TAXES — $1.60! Representatives of most of the railroads serving New Jersey hand in their companies' annual tax checks, totaling $17,406,787.64, to State Treasurer Archibald S. Alexander, in his office in the State House in Trenton. Payments comprise operating property taxes of New Jersey railroads, amounting to an average of over $1.60 paid to the state for every dollar earned in the state.

Shown here, from left to right, grouped around Mr. Alexander (seated), are: Paul M. Tucker, tax agent, Lackawanna; C. William Pleiss, tax agent, Reading; L. H. Brannagan, tax agent, Central of New Jersey; Robert I. Huyler, vice-president, secretary and treasurer, Lehigh & Hudson River; Herman H. Ehlers, assistant land and tax agent, New York Central System; Joseph Lessin, tax agent, Lehigh Valley; Stanley Commaker, assistant agent, real estate department, Pennsylvania; Arthur K. Marvin, land and tax agent, New York, Susquehanna & Western; and Richard T. Blackson, chairman, Associated Railroads of New Jersey.

Shipper Board Estimates 8.9% High in 2nd Quarter

All 13 Regional Shippers Advisory Boards overestimated car loadings for the second quarter of 1954, the average of their estimates being 8.9% over actual figures.

This was reported in the latest comparison of forecasts with loadings made by Chairman Arthur H. Gass of the Car Service Division, Association of American Railroads.

The boards were low in six of their estimates for 32 individual commodities, these figures ranging from 4.8% under on flour, meal and other mill products to 28.8% under on hay, straw and alfalfa loadings. Overestimates ranged from a low of 0.4% on fertilizers, all kinds, to 21.9% on ore and concentrates.

Regional estimates ranged from 1.5% over actual carloads in the Pacific Northwest to 16.2% over in the Alleghany region.

Questions and Answers FOR THE TRANSPORTATION DEPARTMENT

A trainmaster writes: It often appears that system-wide budget cuts are ordered because of traffic decreases. A particular operating division may experience little or none of this decline, but still must curtail its service, thus risking traffic losses, merely to conform to the system budget. This seems unreasonable and unrealistic. Do all roads follow this practice?

•

No. Some take up the slack elsewhere.

Prudent management requires curtailing expenditures when income declines.

A property that has been well maintained during prosperous periods can cut maintenance-of-way activities by deferring desirable but not absolutely essential improvements. Equipment maintenance follows more closely traffic trends than maintenance of way, and these expenditures can be cut by the reduced requirements for power and cars.

I do not consider a rigid transportation budget, i.e., one which predetermines the amount of money that can be spent on yard service, train service, etc., by the operating divisions of a railroad as a practical method of operating a railroad. If the freight train-miles are kept in line with falling gross ton-miles and yard engine assignments are adjusted to the decline in cars handled, it will follow that expenses will decline in a fairly close relationship to business.

It would seem to me that a railroad which controlled its transportation expenses by budget, to the extent of not working yard engines or running trains that were required to move traffic, merely to meet a predetermined expenditure, would soon fall behind in the competition for business.—*J. W. Corbett, vice-president — operations, Southern Pacific.*

When does per diem cease on foreign cars held awaiting necessary material for repairs?

•

When material is shipped, as evidenced by express receipt or freight waybill.

Per Diem rule 8-a provides that "when a car is detained awaiting receipt of repair material, the per diem shall cease from date the necessary material is ordered from the owner until the date on which it is shipped in the manner prescribed by [Association of American Railroads] Mechanical Division Interchange Rule 122, as evidenced by express shipping receipt or carrier's waybill." Does this mean that a copy of the owning carrier's waybill must be furnished to the road holding the car, or is advice of the waybill date considered to be sufficient.

The Eastern Association of Car Service Officers, to whom this question originally was submitted, answered in the manner following:

Some railroads may agree among themselves to use the "advice of waybill" date. However, it is generally considered that the per diem rule implies that a copy of the express shipping receipt or the owning carrier's waybill must be furnished the holding road.

The question: **How would you load 20 specified cars so that, when unloaded at destination, they would be on the rails of the owning line or at a junction with the owner?**

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More answers to the Car Service "quiz."

Since we published in the December 6 issue (page 13) the list of those submitting correct answers to our Car Service Rule quiz of October 25, more replies have come in, bringing the total to 431. Of these respondents, 274 had correct answers and 157 were incorrect. —*G.C.R.*

The names of those sending correct answers, in addition to those published in the December 6 issue, follow:

CHESAPEAKE & OHIO

J. P. Charters, assistant trainmaster; K. L. Eldridge, assistant trainmaster; C. B. Gothard, yardmaster, Peru, Ind.; H. H. Heidecker, yardmaster; W. G. Huepel, yardmaster; H. T. Jackson, yardmaster; M. W. Karsten, Plymouth, Mich.; W. H. Kramp, assistant trainmaster, Detroit; P. T. Lamson, assistant trainmaster; James Losey, yardmaster; W. E. Martin, chief train dispatcher; James Shine, yardmaster; Geraldine Stone, Plymouth; W. K. Weaver, assistant superintendent-trainmaster, Peru; R. L. Zumdeck, yardmaster.

DETROIT, TOLEDO & IRONTON

I. L. Barton, agent, Jackson, Ohio; R. W. Callahan, yardmaster, Springfield, Ohio; C. F. Davies, yard clerk, Springfield; C. E. DeWitt, yard clerk, Springfield; M. J. Erickson, relief agent, Leipsic, Ohio; R. S. Glassner, agent, Bainbridge, Ohio; M. F. Janowitz, yard clerk, Springfield; R. P. Kimmet, agent, Leipsic; V. H. Logan, agent, Lima, Ohio; D. R. Murray, agent, Greenfield, Ohio; D. W. Ogle, relief agent, Dearborn, Mich.; L. J. Ogle, trainmaster, Springfield; K. E. Omerod, yard clerk, Flat Rock, Mich.; H. D. Price, agent, Toledo, Ohio; D. T. Quint, agent, Ottawa, Ohio; F. W. Smith, yardmaster, Ecorse, Mich.; L. Swable, general yardmaster, Springfield; R. Tackett, yard clerk, Springfield; L. H. Welch, general agent, Ironton, Ohio.

ERIE

R. E. Burns, warehouse foreman, Warren, Ohio; J. J. Callahan, chief clerk, Warren; E. D. Carey, Warren; W. L. Cartwright, agent-yardmaster, Niles, Ohio; J. R. Cassidy, freight agent, Meadville, Pa.; W. J. Corbett, yardmaster, Avoca, Pa.; G. H. Crossett, yardmaster, Cleveland; Howard Davis, car distributor, Youngstown, Ohio; H. A. Dean, yardmaster, Meadville; J. F. Decker, general yardmaster, Avoca; J. J. Dorsey, relief yardmaster, Cleveland; H. Arlene Fitzgibbons, yard clerk, Meadville; T. E. Fitzgibbons, yard clerk, Meadville; C. J. Gilchrist, flag clerk, Jersey City, N. J.; E. J. Henning, yardmaster, Avoca; E. H. Miller, Warren; J. P. O'Donnell, yard clerk, Meadville; J. F. Orr, chief dispatcher; A. P. Random, rate and bill clerk, Warren; R. P. Reebel, freight agent, Warren; J. P. Steines, freight agent, Sharon, Pa.; G. Stranahan, foreman, East Buffalo, N. Y.; H. L. Wood, freight agent, Newburgh, N. Y.

NEW YORK CENTRAL

C. O. Garard, yard brakeman, Indianapolis; R. B. Hasselman, transportation assistant, office of general manager, Syracuse, N. Y.

NON-RAILROAD RESPONDENTS

George Billmyer, Washington University, St. Louis; D. B. Howard, supervisor, metallurgy and welding, general laboratories, ACF Industries, Inc., Berwick, Pa.

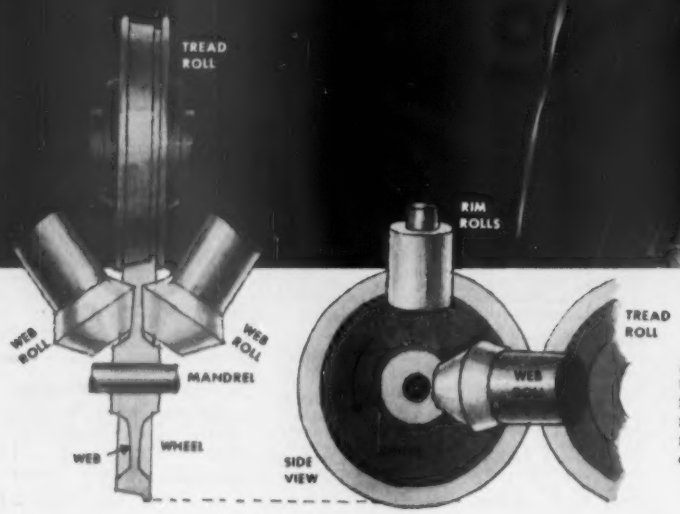
UNIDENTIFIED

M. C. Faris, Terra Haute, Ind.

CONDUCTED BY G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, Railway Age, 30 Church Street, New York 7.

USS One-Wear Wrought Steel Wheels

start rolling here and keep rolling



AS THE WHEEL BLANK SPINS on the mandrel, two powered rolls are rotated against the web, forcing the metal out against the tread-forming roll which shapes the tread and flange. The rim rolls, rotating against the rim, form it to the correct width and thickness.

safely for 200,000 miles or more

THIS is hot rolling—a critical step in the manufacture of USS One-Wear *Wrought* Steel Wheels.

The forged wheel blank, which has just been hub-punched and reheated, is brought from the furnace to the rolling mill by a charging machine. Giant tongs clamp onto the wheel and swing it into the rolls. As the hub lines up with the mandrel, the mandrel is shot into place. The driven rolls close on the wheel. The wheel begins to rotate. Suddenly, it's a whirling hot blur splashing pieces of hot scale through the air like a huge Fourth of July pinwheel. Perceptibly, the wheel increases in diameter as the rolls do their work. Then it slows and stops. Out goes the mandrel. The wheel, rolled to shape, is permanently identified by hot stamping—and is then on its way to the coning press, hub facing and rough boring machines, and final rigid inspection.

Controlled heating, forging, rolling and cooling produce uniformity in the structure of the steel and develop the desired hardness, ductility and strength —those qualities that make USS One-Wear *Wrought* Steel Wheels safer and more dependable than the ordinary wheel.

AFTER LEAVING the rolling mill each wheel is hot stamped with life long identification and its dimensions are checked against the required specifications with a set of king-size calipers.

USS ONE-WEAR *WROUGHT* STEEL WHEELS are your best investment because . . .

THEY LAST LONGER . . . USS One-Wear *Wrought* Steel Wheels will average 200,000 to 300,000 miles or more in normal freight car service.

THEY COST LESS . . . Their far greater life in any given service will reflect a *substantially lower annual cost* than that of the ordinary wheel, even though, initially, the USS One-Wear *Wrought* Steel Wheel costs a little more than the ordinary type wheel.

REQUIRE LESS MAINTENANCE...Rolling on USS One-Wear *Wrought* Steel Wheels, a car spends more time in *service* and less time on repair sidings, resulting in increased revenue to the railroad. Also, less frequent repair means reduced maintenance and lower labor costs.

SAVE UNSPRUNG WEIGHT . . . Because they are lighter than ordinary wheels, eight *Wrought* Steel Wheels under a 50-ton capacity car will save approximately 1,520 lbs. of unsprung weight, which is directly converted either into additional payload capacity or into savings due to the decreased load. Furthermore, reduced unsprung weight means less damaging impact on the track system.

Two strategically located complete wheel shops are ready to fill your orders for *Wrought* Steel Wheels: McKees Rocks (Pittsburgh), Pennsylvania shop, serving the East and Southeast, and the Gary, Indiana shop, supplying the Western and Southern Lines.

USS WROUGHT STEEL WHEELS

UNITED STATES STEEL CORPORATION, PITTSBURGH, PA.
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA.

USS

COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

4-2007

UNITED STATES STEEL

Freight Operating Statistics of Large Steam Railways—Selected Items

Region, Road and Year		Miles of road operated	Locomotive-Miles: Train-miles	Locomotive-Miles: Principal and helper	Locomotive-Miles: Light	Car-Miles: Loaded (thousands)	Car-Miles: Per cent loaded	Ton-miles (thousands): Gross excl. locos. & tenders	Ton-miles (thousands): Net rev. and non-rev.	Road-locos. on line: Serviceable: Unstored	Road-locos. on line: Serviceable: Stored	Road-locos. on line: B.O.	Road-locos. on line: per cent B.O.
New Eng. Region	Boston & Maine	1954	1,664	237,277	240,297	6,361	8,290	66.7	532,040	218,283	71	1	7	8.9
		1953	1,668	246,820	251,367	8,882	9,227	68.8	580,011	239,286	71	2	8	9.9
	N. Y., N. H. & Htfd	1954	1,746	243,969	244,293	16,567	10,615	68.8	647,744	269,922	91	..	3	3.2
		1953	1,749	301,354	301,366	20,195	11,904	68.8	736,537	313,341	93	..	3	3.1
Great Lakes Region	Delaware & Hudson	1954	793	180,200	184,600	9,440	8,559	67.5	602,656	307,373	39	..	4	9.3
		1953	793	203,050	208,861	10,555	9,930	73.5	670,413	362,964	45	..	4	8.2
	Del., Lack. & Western	1954	962	252,823	264,960	20,575	11,061	66.9	722,708	311,180	64	..	1	1.5
		1953	962	264,793	280,909	23,590	12,013	69.1	787,451	354,083	65	..	..	..
	Erie	1954	2,225	518,224	521,374	14,477	29,969	69.1	1,818,427	708,468	160	..	4	2.4
		1953	2,237	602,359	606,663	25,215	33,716	68.2	2,097,295	836,508	165	..	4	2.4
	Grand Trunk Western	1954	952	210,787	217,730	1,653	6,792	59.2	491,448	203,459	61	6	13	16.3
		1953	952	253,842	257,463	1,842	7,732	60.4	538,955	222,163	62	6	11	13.9
	Lehigh Valley	1954	1,150	201,414	204,841	6,355	10,153	66.1	693,464	318,304	31	2	1	2.9
		1953	1,151	226,322	230,342	7,286	10,931	67.7	772,243	361,202	33	..	1	2.9
	New York Central	1954	10,663	2,164,075	2,192,400	76,134	87,190	60.9	6,222,082	2,742,113	535	184	136	15.9
		1953	10,667	2,565,342	2,634,377	101,489	101,344	61.0	7,407,993	3,312,806	703	55	156	17.1
	New York, Chic. & St. L.	1954	2,161	642,064	667,615	6,146	26,361	65.6	1,830,465	804,475	143	37	42	18.9
		1953	2,161	751,331	779,544	7,709	29,294	66.2	2,030,758	929,603	212	16	32	12.3
	Pitts. & Lake Erie	1954	221	50,179	50,315	....	2,392	63.7	211,761	129,261	17	7	1	4.0
		1953	221	78,436	80,854	....	3,418	65.7	292,292	177,907	22	5	7	20.6
	Wabash	1954	2,381	481,308	483,870	6,303	21,430	65.3	1,387,847	528,780	103	..	..	..
		1953	2,381	567,492	570,728	6,927	24,513	66.3	1,592,312	623,460	100	20	24	16.7
Central Eastern Region	Baltimore & Ohio	1954	6,077	1,382,182	1,515,270	122,423	56,273	61.6	4,268,696	2,040,373	423	74	110	18.1
		1953	6,081	1,604,714	1,771,605	175,189	66,065	63.4	5,022,637	2,474,929	490	24	109	17.5
	Bessemer & Lake Erie	1954	209	37,365	40,126	117	2,153	69.1	236,510	157,678	11	3	..	..
		1953	213	58,447	64,191	380	3,370	63.9	388,305	255,115	18	14	..	..
	Central RR Co. of New Jersey	1954	613	118,313	119,151	5,825	4,468	65.1	329,677	168,458	56	2	3	4.9
		1953	616	124,958	129,426	9,273	5,041	69.0	368,037	195,160	70	7	7	8.3
	Chicago & Eastern Ill.	1954	868	114,593	114,593	2,395	4,562	66.7	289,910	154,502	25	..	3	10.7
		1953	868	118,667	118,667	2,444	4,878	67.8	324,619	156,206	28	..	1	3.4
	Elgin, Joliet & Eastern	1954	236	71,346	71,709	....	2,258	63.4	178,240	94,959	33	8	2	4.7
		1953	236	94,375	95,004	28	2,928	63.7	233,959	125,737	41	..	..	..
	Pennsylvania System	1954	9,906	2,571,256	2,746,826	192,365	109,811	65.3	7,775,129	3,669,310	727	323	384	26.8
		1953	9,939	3,050,798	3,263,685	286,242	127,389	64.8	9,187,888	4,444,074	1,065	142	301	20.0
	Reading	1954	1,304	291,394	292,849	10,061	10,900	60.9	877,658	450,878	156	22	23	11.4
		1953	1,309	342,027	347,917	14,385	13,251	65.0	1,033,713	549,784	171	24	18	8.5
	Western Maryland	1954	857	142,722	148,319	7,411	5,545	64.0	457,418	255,819	35	44	1	1.3
		1953	873	169,537	187,204	14,188	6,406	63.1	528,469	296,353	88	27	2	1.7
Pocahontas Region	Chesapeake & Ohio	1954	5,050	1,205,784	1,221,677	32,287	50,886	58.2	4,318,544	2,410,421	344	68	163	28.3
		1953	5,034	1,284,191	1,312,916	35,701	57,442	57.8	4,924,752	2,729,369	418	48	138	22.8
	Norfolk & Western	1954	2,110	591,267	624,119	47,101	28,392	59.9	2,546,244	1,380,737	198	52	31	11.0
		1953	2,113	674,671	711,993	50,251	32,463	58.2	2,920,130	1,571,170	223	22	23	8.6
Southern Region	Atlantic Coast Line	1954	5,340	681,856	681,859	7,054	21,291	60.2	1,547,872	716,407	241	..	6	2.4
		1953	5,367	694,523	694,532	7,257	21,206	63.0	1,493,081	700,034	243	..	5	2.0
	Central of Georgia	1954	1,731	176,898	176,924	2,025	7,257	68.2	496,546	238,400	72	..	2	2.7
		1953	1,754	198,385	198,437	2,213	7,188	67.3	487,407	226,729	70	..	2	2.8
	Gulf, Mobile & Ohio	1954	2,718	262,985	262,985	548	14,514	70.4	975,071	471,415	83	..	6	6.7
		1953	2,718	304,666	304,666	83	15,692	70.7	1,042,985	503,676	84	..	5	5.6
	Illinois Central	1954	6,537	1,206,892	1,210,020	39,105	47,809	63.2	3,471,936	1,617,315	448	107	111	16.7
		1953	6,538	1,391,756	1,395,505	49,043	50,454	62.8	3,642,284	1,571,427	537	60	62	9.4
	Louisville & Nashville	1954	4,719	836,405	840,253	15,027	30,752	63.3	2,294,729	1,175,898	231	55	6	2.1
		1953	4,728	952,542	998,806	20,486	33,898	62.9	2,528,215	1,284,522	240	55	35	10.6
	Nash., Chatt. & St. Louis	1954	1,043	164,855	168,105	3,471	5,486	70.4	358,719	169,243	46	..	7	13.2
		1953	1,032	184,918	186,508	3,656	6,336	69.2	422,473	199,471	50	..	2	3.8
	Seaboard Air Line	1954	4,053	526,597	526,597	510	20,399	63.3	1,463,453	679,753	134	..	13	8.8
		1953	4,068	530,766	530,766	577	20,784	64.1	1,472,640	677,950	133	11	9	5.9
	Southern	1954	6,262	902,848	902,913	12,130	38,695	67.2	2,529,071	1,149,858	280	..	1	.4
		1953	6,253	954,062	954,138	11,261	39,515	68.9	2,537,247	1,162,235	230	5	2	.8
Northwestern Region	Chicago & North Western	1954	7,850	750,612	752,395	10,016	31,810	64.6	2,203,070	970,205	167	36	51	20.1
		1953	7,849	773,350	776,081	11,756	33,586	65.1	2,374,642	1,057,959	218	33	60	19.3
	Chicago Great Western	1954	1,437	130,997	130,997	282	7,377	66.6	496,823	216,168	29	..	4	12.1
		1953	1,435	135,922	136,217	205	8,218	70.3	550,034	257,525	32	..	1	3.0
	Chic., Milw., St. P. & Pac.	1954	10,632	1,018,871	1,039,097	26,563	44,761	63.3	3,110,838	1,373,159	308	56	48	11.7
		1953	10,660	1,128,884	1,157,829	33,597	48,100	64.0	3,323,221	1,481,294	358	17	51	12.0
	Chic., St. P., Minn. & Omaha	1954	1,606	163,511	164,890	5,119	5,351	67.5	366,715	162,259	59	..	19	24.4
		1953	1,606	169,824	172,929	5,956	5,673	69.2	392,691	180,432	69	3	28	28.0
	Duluth, Missabe & Iron Range	1954	567	116,227	116,707	974	5,341	52.1	550,753	332,516	55	17	6	7.7
		1953	568	212,474	213,402	1,566	9,854	51.0	1,024,080	627,223	63	..	4	6.0
	Great Northern	1954	8,295	1,149,905	1,155,159	34,302	45,926	63.4	3,520,545	1,723,825	265	148	48	10.4
		1953	8,291	1,269,181	1,272,334	36,888	50,027	61.3	3,959,498	1,969,307	333	83	39	8.6
	Minneap., St. P. & S. Ste. M.	1954	4,169	391,657	395,822	4,503	13,259	67.8	879,494	421,235	100	..	16	13.8
		1953	4,172	407,544	411,199	5,599	14,209	65.6	976,214	469,430	109	..	11	9.2
	Northern Pacific	1954	6,570	887,302	915,234	34,240	35,229	64.5	2,520,141	1,114,728	306	7	64	17.0
		1953	6,583	927,589	957,809	33,304	35,773	64.6	2,549,535	1,152,695	315	9	76	19.0
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1954	13,076	2,078,667	2,161,851	47,151	93,265	67.1	6,160,048	2,426,175	526	116	27	4.0
		1953	13,095	2,379,538	2,418,813	71,570	103,765	67.5	6,854,697	2,734,024	546	115	59	8.2
	Chic., Burl. & Quincy	1954	8,824	1,201,775	1,200,471	33,279	51,159	67.0	3,316,224	1,442,753	268	27	47	13.7
		1953	8,833	1,266,977	1,276,534	43,880	53,047	67.3	3,495,524	1,562,812	333	15	38	9.8
	Chic., Rock I. & Pac.	1954	7,869	813,071	813,473	1,354	30,998	64.3	2,190,347	944,067	165	6	4	2.3
		1953	7,866	884,810	883,616	4,228	33,948	67.0	2,332,088	1,042,285	169	2	6	3.4
	Denver & R. G. Wn.	1954	2,164	334,228	357,154	35,076	15,483	70.3	1,046,092	482,366	82	24	33	23.7
		1953	2,313	348,560	376,760	43,168	16,321	71.7	1,127,617	531,473	89	27	38	24.7
	Southern Pacific	1954	8,063	2,195,168	2,311,422	272,435	95,670	61.8	6,802,095	2,610,132	662	13	129	16.0
		1953	8,058	2,174,881	2,300,580	281,715	92,956	63.4	6,518,605	2,631,679	658	45	163	18.8
	Union Pacific	1954	9,816	2,575,225	2,631,714	112,531	112,263	64.7	7,469,056	2,979,782	472	220	130	15.8
		1953	9,822	2,980,276	3,071,352	183,778	119,217	63.5	8,225,161	3,368,147	636	56	134	16.2
	Western Pacific	1954	1,190	232,225	237,450	8,849	11,009	72.3	685,504	309,284	41	4	..	..
		1953	1,190	247,772	254,281	13,490	12,228	74.7	765,328	357,531	40	11	4	7.3
Southwestern Region	International-Gt. Northern*	1954	1,103	124,639	124,639	....	5,070	65.5	380,370	177,715	43	..	1	2.3
		1953	1,104	147,887	147,887	178	5,434	67.6	376,075	178,933	48	..	4	7.7
	Kansas City Southern	1954	886	133,630	133,712	182	7,511	66.2	528,872	235,063	24	..	3	11.1
		1953	886	164,933	164,965	108	8,619	65.1	617,059	284,840	25	..	1	3.8
	Mo.-Kans.-Texas Lines	1954	3,229	334,685	334,685	3,661	13,104	65.0	849,994	349,474	85	..	..	..
		1953	3,230	362,143	362,143	3,887	14,147	65.4	921,212	398,798	91	7	..	..
	Missouri Pacific*	1954	6,896	938,352	938,830	10,752	40,337	67.1	2,721,279	1,221,248	218	56	92	25.1
		1953	6,917	1,179,163	1,182,000	14,273	46,263	68.2	3,088,174	1,379,741	291	39	64	16.2
	Texas & Pacific	1954	1,822	299,907	299,907	2,813	12,853	65.3	887,902	349,098	58	..	2	3.3
		1953	1,831	302,336	302,336	3,636	13,486	65.9	921,529	367,029	60	..	..	..
	St. Louis-San Francisco	1954	4,564	572,158	572,158	5,425	22,659	65.7	1,522,225	674,884	110	..	6	5.2
		1953	4,564	620,534	620,534	6,008	23,756	64.5	1,613,684	708,088	191	..	2	1.0
	St. Louis Southw. Lines	1954	1,555	274,079	274,079	1,317	11,954	73.8	719,771	321,734	53	6	10	14.5
		1953	1,555	295,250	295,306	3,995	13,260	73.3	810,352	362,239	58	21	3	3.7
	Texas & New Orleans	1954	4,275	669,144	669,144	5,065	24,910	59.0	1,799,088	747,260	140	..	32	18.6
		1953	4,279	680,907	680,907	10,848	25,439	65.3	1,755,677	782,556	185	..	32	14.7

For the Month of September 1954 Compared with September 1953

Region	Road	Year	Freight cars on line: Home	Foreign	Total	Per Cent B.O.	G.t.m. per train-hr. excl. locos. and tenders	G.t.m. per train-mi. excl. locos. and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd car-mile	Net ton-mi. per car-day	Car-miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Miles per loco. per day
New Eng. Region	Boston & Maine	1954	2,580	7,444	10,024	5.0	35,155	2,248	922	26.3	726	41.4	4,373	15.7	119.6
		1953	1,618	8,533	10,151	1.8	38,472	2,354	971	25.9	809	45.3	4,782	16.4	112.0
	N. Y., N. H. & Hfd	1954	2,822	13,206	16,028	3.5	40,265	2,655	1,106	25.4	570	32.6	5,153	15.2	114.2
		1953	2,111	14,070	16,181	2.6	39,406	2,444	1,040	26.3	625	34.5	5,972	16.1	134.4
Great Lakes Region	Delaware & Hudson	1954	6,647	4,214	10,861	5.2	63,484	3,361	1,714	35.9	931	38.4	12,920	19.0	161.2
		1953	3,885	5,613	9,498	7.3	62,474	3,318	1,797	36.6	1,299	48.4	15,257	18.9	158.7
	Del., Lack. & Western	1954	7,473	8,945	16,418	4.6	48,605	2,914	1,255	28.1	626	33.2	10,782	17.0	163.4
		1953	5,938	10,207	16,145	4.4	50,371	3,028	1,362	29.5	728	35.7	12,269	16.9	172.4
	Erie	1954	12,179	16,334	28,513	5.7	66,587	3,537	1,378	23.6	849	52.0	10,614	19.0	121.2
		1953	7,433	19,639	27,072	3.3	64,143	3,518	1,403	24.8	1,020	60.3	12,465	18.4	136.9
	Grand Trunk Western	1954	4,753	6,906	11,659	6.0	49,204	2,364	979	30.0	555	31.3	7,124	21.1	96.8
		1953	3,531	8,402	11,933	5.1	45,428	2,132	879	28.7	596	34.3	7,779	21.4	117.5
	Lehigh Valley	1954	9,142	8,031	17,173	4.6	68,100	3,496	1,605	31.4	610	29.4	9,226	19.8	228.2
		1953	6,557	9,494	16,051	5.7	66,745	3,468	1,622	33.0	742	33.2	10,461	19.6	248.9
	New York Central	1954	82,330	72,387	154,717	13.8	49,636	2,929	1,291	31.4	593	31.0	8,572	17.3	98.8
		1953	68,831	94,249	163,080	9.7	48,996	2,931	1,311	32.7	670	33.6	10,352	17.0	110.7
	New York, Chic. & St. L.	1954	10,482	14,064	24,546	8.3	51,594	2,905	1,277	30.5	1,112	55.6	12,409	18.1	111.4
		1953	7,211	17,874	25,085	5.8	48,467	2,754	1,261	31.7	1,170	55.7	14,339	17.9	111.7
	Pitts. & Lake Erie	1954	9,986	5,445	15,431	8.2	61,684	4,230	2,582	54.0	274	8.0	19,496	14.6	81.0
		1953	3,157	9,546	12,703	7.1	52,608	3,732	2,272	52.1	462	13.5	26,834	14.1	85.1
	Wabash	1954	9,370	9,755	19,125	10.0	62,921	2,901	1,105	24.7	923	57.4	7,403	21.8	168.0
		1953	8,174	11,528	19,702	10.4	63,396	2,826	1,107	25.4	1,054	62.5	8,728	22.6	142.6
Central Eastern Region	Baltimore & Ohio	1954	58,175	36,176	94,351	15.1	48,564	3,133	1,498	36.3	718	32.2	11,192	15.7	95.1
		1953	50,457	49,616	100,073	5.7	46,327	3,180	1,567	37.5	812	34.2	13,566	14.8	109.2
	Bessemer & Lake Erie	1954	6,249	662	6,911	16.2	89,249	6,484	4,323	73.2	731	14.5	25,148	14.1	108.2
		1953	4,748	2,252	7,000	11.0	99,821	6,805	4,471	75.7	1,235	25.5	39,924	15.0	64.7
	Central RR Co. of New Jersey	1954	5,406	8,526	13,932	12.7	38,946	2,909	1,486	37.7	392	16.0	9,160	14.0	93.3
		1953	3,499	10,237	13,736	9.0	39,544	3,090	1,638	38.7	480	18.0	10,561	13.4	78.8
	Chicago & Eastern Ill.	1954	3,258	3,543	6,801	11.4	42,640	2,541	1,354	33.9	807	35.7	5,933	16.9	156.5
		1953	2,458	3,345	5,803	6.8	43,779	2,755	1,326	32.0	892	41.1	5,999	16.0	152.4
	Elgin, Joliet & Eastern	1954	7,738	5,141	12,879	8.0	22,551	2,614	1,393	42.1	234	8.8	13,412	9.0	74.0
		1953	6,929	10,852	17,781	5.4	20,346	2,613	1,404	42.9	236	8.6	17,759	8.2	101.8
	Pennsylvania System	1954	116,023	86,682	202,705	12.1	54,542	3,102	1,464	33.4	604	27.7	12,347	18.0	74.8
		1953	104,016	97,767	201,783	7.7	51,129	3,111	1,505	34.9	731	32.3	14,904	17.0	86.4
	Reading	1954	18,876	14,600	33,476	8.0	43,071	3,013	1,548	41.4	459	18.2	11,526	14.3	60.5
		1953	14,774	19,101	33,875	5.8	41,662	3,026	1,609	41.5	545	20.2	14,000	13.8	70.3
	Western Maryland	1954	6,948	2,853	9,801	2.5	45,280	3,252	1,819	46.1	832	28.2	9,950	14.1	72.1
		1953	5,436	2,695	8,131	5.0	43,528	3,162	1,773	46.3	1,176	40.3	11,316	14.0	63.1
Pocahontas Region	Chesapeake & Ohio	1954	56,712	23,777	80,489	4.2	68,048	3,594	2,006	47.4	995	36.1	15,910	19.0	79.9
		1953	51,408	24,277	75,685	3.2	69,509	3,851	2,134	47.5	1,221	44.5	18,073	18.1	80.6
	Norfolk & Western	1954	37,746	7,516	45,262	3.2	75,763	4,399	2,286	48.6	1,011	34.7	21,813	17.6	88.8
		1953	33,395	7,823	41,218	2.6	74,689	4,405	2,370	48.4	1,324	47.0	24,786	17.3	103.3
Southern Region	Atlantic Coast Line	1954	20,528	14,947	35,475	2.8	39,397	2,280	1,055	33.6	676	33.4	4,472	17.4	103.7
		1953	15,764	16,493	32,257	2.3	37,052	2,160	1,013	33.0	741	35.6	4,348	17.2	105.0
	Central of Georgia	1954	3,236	5,516	8,752	6.4	48,410	2,813	1,351	32.9	915	40.9	4,591	17.2	92.0
		1953	2,733	5,357	8,090	3.2	43,982	2,467	1,148	31.5	928	43.7	4,309	17.9	102.1
	Gulf, Mobile & Ohio	1954	5,357	9,815	15,172	3.3	68,807	3,713	1,795	32.5	1,075	47.0	5,781	18.6	107.6
		1953	4,422	11,267	15,689	3.4	65,461	3,432	1,657	32.1	1,091	48.1	6,177	19.1	123.1
	Illinois Central	1954	28,487	25,607	54,094	3.1	46,928	2,912	1,357	33.8	1,022	47.8	8,247	16.3	68.3
		1953	26,516	32,224	58,740	2.9	43,558	2,654	1,218	33.1	1,003	48.2	8,522	16.6	79.1
	Louisville & Nashville	1954	34,557	12,529	47,086	3.3	47,526	2,751	1,410	38.2	814	33.6	8,306	17.3	102.4
		1953	32,835	13,921	46,776	3.9	45,048	2,662	1,353	37.9	929	39.0	9,056	17.0	109.7
	Nash., Chatt. & St. Louis	1954	3,481	3,518	6,999	3.7	41,090	2,180	1,028	30.8	813	37.5	5,409	18.9	116.0
		1953	2,091	5,052	7,143	2.4	41,974	2,289	1,081	31.5	914	42.0	6,443	18.4	130.2
	Seaboard Air Line	1954	13,663	11,671	25,334	2.9	50,846	2,820	1,310	33.3	906	43.0	5,591	18.3	139.5
		1953	11,585	13,021	24,606	1.8	49,857	2,802	1,290	32.6	927	44.3	5,555	18.0	134.8
	Southern	1954	18,979	23,896	42,875	3.8	48,396	2,813	1,279	29.7	864	43.2	6,121	17.3	121.3
		1953	16,892	28,264	45,156	3.2	45,631	2,671	1,224	29.4	862	42.5	6,196	17.2	146.0
Northwestern Region	Chicago & North Western	1954	20,524	30,823	51,347	5.2	49,871	3,036	1,337	30.5	625	31.7	4,120	17.0	107.8
		1953	28,885	32,338	53,223	5.2	51,277	3,171	1,413	31.5	660	32.2	4,493	16.7	86.2
	Chicago Great Western	1954	1,935	3,908	5,843	3.6	73,419	3,795	1,651	29.3	1,191	61.0	5,014	19.4	138.2
		1953	1,028	4,720	5,748	3.6	73,348	4,055	1,899	31.3	1,516	68.8	5,982	18.1	144.6
	Chic., Milw., St. P. & Pac.	1954	37,282	30,275	67,557	7.1	55,441	3,066	1,353	30.7	664	34.2	4,305	18.2	94.1
		1953	32,508	33,716	66,224	7.1	51,044	2,957	1,318	30.8	719	36.5	4,632	17.3	101.2
	Chic., St. P., Minn. & Omaha	1954	1,148	8,283	9,431	3.7	31,797	2,293	1,014	30.3	579	28.3	3,368	14.2	77.5
		1953	1,195	7,881	9,076	4.5	34,377	2,376	1,092	31.8	670	30.5	3,745	14.9	65.9
	Duluth, Missabe & Iron Range	1954	14,450	670	15,120	2.2	79,428	4,986	3,010	62.3	742	22.9	19,548	16.8	63.8
		1953	14,864	912	15,776	4.7	81,438	5,057	3,097	63.7	1,329	40.9	36,809	16.9	123.5
	Great Northern	1954	23,961	23,731	47,692	2.3	53,188	3,097	1,516	37.5	1,142	48.0	6,927	17.4	93.7
		1953	23,465	24,775	48,240	3.3	51,610	3,165	1,574	39.4	1,348	55.9	7,917	16.5	103.3
	Minneap., St. P. & S. Ste. M.	1954	7,522	7,442	14,964	4.8	45,061	2,263	1,084	31.8	994	46.1	3,368	20.1	124.3
		1953	6,633	8,605	15,238	5.7	45,690	2,405	1,156	33.0	985	45.4	3,751	19.1	125.7
	Northern Pacific	1954	21,596	18,980	40,576	5.2	51,213	2,855	1,263	31.6	873	42.8	5,656	18.0	91.7
		1953	20,751	17,469	38,220	4.6	50,610	2,767	1,251	32.2	976	46.9	5,837	18.4	89.7
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1954	56,964	28,471	85,435	4.1	66,672	2,976	1,172	26.0	930	53.3	6,185	22.5	118.1
		1953	46,313	34,546	80,859	3.4	64,796	2,893	1,154	26.3	1,111	62.5	6,959	22.5	122.3
	Chic., Burl. & Quincy	1954	20,067	26,352	46,419	2.9	55,266	2,765	1,203	28.2	1,032	54.6	5,450	20.0	128.9
		1953	20,913	23,484	44,397	3.3	53,484	2,765	1,236	29.5	1,184	59.7	5,898	19.4	115.5
	Chic., Rock I. & Pac.	1954	12,833	17,632	30,465	5.8	51,048	2,701	1,164	30.5	1,041	53.2	3,999	18.9	165.9
		1953	11,259	21,433	32,692	4.8	50,125	2,640	1,180	30.7	1,068	51.9	4,417	19.0	174.8
	Denver & R. G. Wn.	1954	7,795	7,495	15,290	3.5	59,119	3,137	1,447	31.2	1,033	47.2	7,430	18.6	99.5
		1953	6,696	8,739	15,435	2.8	56,370	3,246	1,530	32.6	1,136	48.7	7,659	17.4	97.8
	Southern Pacific	1954	33,586	43,049	76,635	2.0	57,556	3,128	1,200	27.3	1,188	70.5	10,791	18.6	114.0
		1953	29,151	46,265	75,416	2.3	52,563	3,026	1,222	28.3	1,180	65.7	10,886	17.5	107.0
	Union Pacific	1954	32,778	38,340	71,118	2.5	75,513	2,929	1,169	26.5	1,409	82.1	10,119	26.0	114.8
		1953	30,702	38,793	69,495	2.1	68,488	2,793	1,144	28.3	1,571	87.5	11,431	24.8	134.6
	Western Pacific	1954	2,520	3,377	5,897	3.9	76,277	2,962	1,336	28.1	1,744	85.9	8,663	25.8	194.3
		1953	2,296	3,754	6,050	5.2	75,040	3,102	1,449	29.2	1,962	89.8	10,015	24.3	166.7
Southwestern Region	International-Gt. Northern*	1954	846	4,549	6,395	3.0	58,771	3,056	1,428	35.1	923	50.2	5,371	19.3	99.3
		1953	810	5,652	6,462	3.4	50,420	2,545	1,211	32.9	901	49.5	5,403	19.8	100.0
	Kansas City Southern	1954	1,031	5,966	6,977	4.0	80,843	3,972	1,765	31.3	1,126	54.3	8,844	20.4	180.0
		1953	794	5,701	6,495	2.6	75,031	3,763	1,737	33.1	1,416	65.8	10,716	20.1	235.8
	Mo.-Kans.-Texas Lines	1954	4,499	6,238	10,737	8.6	53,298	2,547	1,047	26.7	1,070	61.7	3,608	21.0	141.6
		1953	3,793	7,048	10,841	4.3	52,485	2,552	1,105	28.2	1,221	66.2	4,116	20.6	135.8
	Missouri Pacific*	1954	18,808	18,194	37,002	6.6	62,708	2,911	1,306	30.3	1,096	54.0	5,903	21.6	92.5
		1953	16,950	18,016	34,966	3.4	56,440	2,630	1,175	29.8	1,338	65.8	6,649	21.6	107.8
	Texas & Pacific	1954	3,209	5,928	9,137	4.6	66,941	2,977	1,170	27.2	1,284	72.4	6,387	22.6	177.9
		1953	2,265	7,484	9,749	4.3	69,039	3,054	1,216	27.2	1,266	70.6	6,682	22.7	181.9
	St. Louis-San Francisco	1954	13,222	10,281	23,503	2.8	51,281	2,665	1,182	29.8	933	47.7	4,929	19.3	170.3
		1953	11,338	13,445	24,783	6.7	45,387	2,605	1,143	29.8	989	51.4	5,172	17.5	119.8
	St. Louis Southw. Lines	1954	2,425	4,592	7,017	1.7	51,280	2,633	1,177	26.9	1,547	77.9	6,897	19.5	141.1
		1953	2,122	4,689	6,811	1.5	52,757	2,747	1,228	27.3	1,719	85.8	7,765	19.2	126.2
	Texas & New Orleans	1954	6,560	16,536	23,096	2.1	53,268	2,708	1,125	30.0	1,058	59.8	5,827	19.8	137.1
		1953	5,421	16,559	21,980	1.5	49,488	2,595	1,157	30.8	1,178	58.6	6,096	19.2	114.3

*Report of trustee or trustees.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

Merry Christmas

to the RAILROADS in U.S.A. - CANADA - MEXICO

from the makers of the

POSITIVE Brake Beam

AAR No. 18 - Certificate No. 52

To Nov. 24, 1954
1,441,000
POSITIVE BEAMS
have been ordered

CHICAGO RAILWAY EQUIPMENT CO.

332 South Michigan Avenue, Chicago

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1954

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total 1954	Total (inc. misc.) 1953	Operating Expenses: Maint. Way and Structures: Total 1954	Total 1953	Deprec. and Retirements	Maint. Equipment: Total 1954	Total 1953	Deprec. and Retirements	Traffic	Transportation	Total 1954	Total 1953	Operating ratio 1954	Operating ratio 1953	Net from railway operation	Railway tax accruals	Net railway operating income 1954	Net railway operating income 1953
Akron, Canton & Youngstown	Oct.	171	$474	....	$482	$523	$69	$78	$5	$62	$57	$14	$37	$135	$339	$364	70.4	69.5	$143	$68	$57	$57
	10 mos.	171	4,085	....	4,169	5,390	664	711	59	629	534	150	376	1,345	3,388	3,440	81.3	63.8	781	337	272	786
Atchison, Topeka & Santa Fe	Oct.	13,076	36,737	$3,060	43,838	49,795	6,958	8,694	664	8,430	10,240	1,943	1,261	15,179	33,795	38,036	77.1	76.4	10,043	5,183	4,282	5,200
	10 mos.	13,073	358,018	36,693	435,926	517,438	66,384	77,911	6,703	83,884	93,643	19,191	11,934	146,195	330,131	359,890	75.7	69.6	105,796	54,378	49,678	66,230
Atlanta & St. Andrews Bay	Oct.	82	230	1	338	314	27	28	3	41	19	5	7	71	164	143	48.7	45.4	173	79	60	45
	10 mos.	82	3,084	12	3,155	3,152	246	306	28	246	271	48	61	690	1,427	1,435	45.2	45.5	1,728	776	610	487
Atlanta & West Point	Oct.	93	251	34	330	375	50	72	5	55	57	13	14	134	273	319	82.8	85.0	57	20	18	15
	10 mos.	93	2,354	344	3,176	3,717	438	570	61	543	660	123	149	1,375	2,718	3,136	85.6	84.4	458	204	96	188
Western of Alabama	Oct.	133	305	32	372	426	49	48	8	61	58	18	16	119	264	298	71.1	69.8	108	54	52	58
	10 mos.	133	2,837	329	3,518	3,985	511	555	79	628	671	170	170	1,306	2,822	3,063	80.2	76.9	696	301	403	433
Atlantic & Danville	Oct.	205	141	....	143	162	30	40	2	17	9	5	10	43	109	118	75.9	73.0	34	10	—3	5
	10 mos.	205	1,295	....	1,313	1,612	294	353	19	120	144	47	113	447	1,076	1,238	82.0	76.8	237	88	—99	25
Atlantic Coast Line	Oct.	5,352	9,440	927	11,458	11,973	2,088	2,479	249	2,829	3,197	591	389	4,620	10,492	11,311	91.6	94.5	966	275	640	631
	10 mos.	5,358	100,983	14,823	126,783	137,966	21,248	24,339	1,832	27,166	34,144	5,905	3,864	47,546	105,820	119,297	83.5	86.5	20,963	8,925	9,059	7,597
Charleston & Western Carolina	Oct.	343	539	1	552	555	167	155	9	107	111	42	19	159	465	468	84.3	84.4	87	20	77	83
	10 mos.	343	5,374	15	5,517	5,861	1,541	1,546	82	1,031	1,014	425	181	1,628	4,521	4,574	81.9	78.0	996	385	563	731
Baltimore & Ohio	Oct.	6,183	28,766	1,413	32,463	40,754	4,550	5,203	488	6,338	8,474	1,019	866	13,193	26,414	31,600	81.4	77.5	6,049	1,982	2,752	4,202
	10 mos.	6,183	277,652	16,202	316,935	392,720	38,078	51,448	4,727	63,054	82,046	10,230	8,515	133,432	258,693	307,945	81.6	78.4	58,243	18,147	27,762	40,123
Staten Island Rapid Transit	Oct.	29	204	51	257	282	50	47	18	25	27	2	2	145	256	235	99.7	83.2	1	39	—62	—14
	10 mos.	29	1,823	509	2,358	2,893	481	567	129	262	287	19	15	1,310	2,380	2,589	100.9	89.5	—22	389	—601	—297
Bangor & Aroostook	Oct.	602	447	30	519	800	200	200	16	249	237	89	17	226	740	770	142.6	95.2	—221	Cr 82	69	72
	10 mos.	602	9,895	299	10,622	10,901	2,686	2,500	162	2,280	2,365	835	193	2,979	8,802	8,595	82.9	78.9	1,820	844	1,796	1,683
Bessemer & Lake Erie	Oct.	209	1,959	....	1,980	3,020	155	183	18	453	618	142	23	411	1,146	1,384	57.9	45.8	833	412	705	793
	10 mos.	209	18,192	4	18,345	26,630	1,908	2,136	194	5,587	6,972	1,426	263	4,055	12,806	14,939	69.8	56.1	5,540	2,959	4,627	5,735
Boston & Maine	Oct.	1,676	5,069	769	6,625	7,598	1,116	1,282	162	928	1,130	190	106	3,159	5,633	6,017	85.0	79.2	993	471	86	417
	10 mos.	1,676	50,859	8,875	67,607	74,850	12,614	13,121	1,624	9,963	11,182	1,787	1,192	30,612	57,653	59,953	85.3	80.1	9,954	5,027	210	4,300
Cambria & Indiana	Oct.	35	118	....	119	49	15	9	1	94	67	22	....	18	134	94	112.6	192.5	—15	72	88	59
	10 mos.	35	1,196	....	1,196	1,385	190	183	8	1,031	910	222	1	207	1,501	1,367	125.4	98.7	—304	521	657	779
Canadian Pacific Lines in Maine	Oct.	234	273	53	356	424	94	100	5	83	116	17	8	177	376	421	105.7	99.2	—20	28	—53	—47
	10 mos.	234	4,216	524	5,044	5,695	974	1,092	54	991	1,305	174	81	2,085	4,280	4,894	84.9	85.9	763	281	222	201
Canadian Pacific Lines in Vermont	Oct.	90	187	19	223	237	55	101	5	31	41	....	7	121	223	283	99.9	119.3	....	14	77	131
	10 mos.	90	1,845	149	2,209	2,274	471	869	45	291	377	2	69	1,204	2,126	2,647	96.2	116.4	83	131	648	1,088
Central of Georgia	Oct.	1,764	3,091	116	3,446	3,537	532	572	47	554	569	129	158	1,265	2,702	2,834	78.4	80.1	743	230	462	433
	10 mos.	1,771	28,853	1,560	32,990	36,397	5,195	5,901	446	5,420	5,746	1,368	1,447	12,938	27,041	29,052	82.0	79.8	5,950	2,157	3,371	3,484
Central of New Jersey	Oct.	613	4,065	423	4,864	5,478	626	760	91	753	1,021	179	74	2,064	3,713	4,275	76.3	78.0	1,151	448	591	594
	10 mos.	613	38,391	4,487	46,406	52,601	6,360	7,209	885	8,081	10,275	1,767	757	19,962	37,138	41,938	80.0	79.7	9,269	4,642	3,005	4,498
Central Vermont	Oct.	422	716	52	845	959	188	214	16	122	97	15	16	354	719	750	85.1	78.2	126	44	—5	76
	10 mos.	422	7,639	623	8,940	9,753	2,129	2,109	165	1,064	1,246	112	169	3,652	7,432	7,679	83.1	78.7	1,508	429	125	737
Chesapeake & Ohio	Oct.	5,128	26,764	573	28,782	30,938	3,538	4,048	386	4,324	5,861	1,503	653	9,049	18,795	21,480	65.3	69.4	9,987	4,490	5,869	5,792
	10 mos.	5,106	232,017	6,245	251,740	293,755	35,812	39,197	3,788	47,819	55,152	15,087	6,801	85,650	188,990	205,056	75.1	69.8	62,750	25,370	40,824	51,253
Chicago & Eastern Illinois	Oct.	868	2,335	201	2,821	3,182	341	415	28	464	468	132	141	1,137	2,276	2,327	80.7	73.1	545	133	262	427
	10 mos.	868	21,825	2,288	26,757	30,652	3,509	3,966	228	4,496	5,270	1,308	1,314	10,626	21,733	23,250	81.2	75.8	5,024	1,262	2,718	3,631
Chicago & Illinois Midland	Oct.	130	618	....	633	846	67	88	12	140	167	23	31	191	474	558	74.9	65.9	159	86	53	110
	10 mos.	130	6,202	....	6,346	7,349	688	828	84	1,377	1,571	233	320	2,006	4,849	5,378	76.4	73.2	1,497	729	418	681
Chicago & North Western	Oct.	7,876	13,117	1,661	16,500	18,833	2,415	2,689	351	2,810	2,670	840	385	7,545	14,004	14,493	84.9	77.0	2,496	1,101	704	2,217
	10 mos.	7,876	121,864	18,463	157,107	172,693	24,982	28,920	3,474	28,994	31,354	8,283	3,845	72,951	139,391	148,783	88.7	86.2	17,715	10,667	178	6,490
Chicago, Burlington & Quincy	Oct.	8,858	18,706	1,502	22,425	26,079	2,863	4,567	363	3,546	3,472	826	531	8,546	16,355	18,345	72.9	70.3	6,070	2,966	2,630	3,046
	10 mos.	8,861	170,445	15,811	208,956	233,670	29,793	39,590	3,999	35,098	33,151	8,046	5,002	79,191	157,413	167,357	75.3	71.6	51,543	25,240	22,695	26,277
Chicago Great Western	Oct.	1,470	2,796	8	2,996	3,313	496	486	38	396	476	121	111	900	1,992	2,095	66.5	63.2	1,004	375	390	443
	10 mos.	1,470	25,498	103	27,305	25,567	4,051	4,083	421	4,049	3,214	1,205	1,105	8,611	18,584	17,051	68.1	66.7	8,721	3,230	3,440	3,387
Chicago, Indianapolis & Louisville	Oct.	541	1,655	59	1,868	1,976	223	330	24	260	297	73	96	646	1,325	1,463	70.9	74.1	542	215	223	199
	10 mos.	541	15,255	583	17,167	18,382	2,521	3,477	228	2,600	2,730	713	893	6,248	13,271	14,321	77.3	77.9	3,897	1,365	1,559	1,645
Chicago, Milw., St. Paul & Pacific	Oct.	10,640	17,475	1,132	20,820	23,762	2,961	2,950	382	3,835	4,504	879	508	8,133	16,519	18,072	79.3	76.1	4,302	1,430	2,185	2,472
	10 mos.	10,639	163,194	12,430	196,541	218,487	32,929	35,880	4,063	39,698	45,311	8,926	4,818	79,596	167,229	182,722	85.1	83.6	29,312	13,619	8,204	11,592
Chicago, Rock Island & Pacific	Oct.	7,923	12,275	1,305	14,986	16,547	2,408	2,543	270	2,472	2,787	566	488	5,769	11,909	12,485	79.5	75.5	3,078	1,109	1,362	2,243
	10 mos.	7,890	126,970	14,420	155,923	176,814	22,103	23,637	2,515	25,781	27,328	5,580	4,829	58,140	119,097	124,234	76.4	70.3	36,826	13,613	15,202	23,497
Chic., St. Paul, Minn. & Omaha	Oct.	1,616	2,441	145	2,800	3,207	461	472	46	372	409	89	65	1,325	2,344	2,454	83.7	76.5	456	181	25	314
	10 mos.	1,616	23,305	1,564	27,027	28,219	4,353	4,924	489	3,913	4,307	910	642	13,097	23,306	25,137	86.2	89.1	3,721	1,727	—719	—964
Clinchfield	Oct.	304	1,883	....	1,898	2,045	182	423	19	274	332	91	48	442	996	1,291	52.5	63.1	902	126	886	706
	10 mos.	304	16,975	4	17,073	20,573	2,780	3,702	195	3,004	3,458	1,184	473	3,946	10,628	12,285	62.2	59.7	6,445	1,939	5,188	7,347

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1954

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total 1954	Total (inc. misc.) 1953	Operating Expenses: Maint. Way and Structures: Total 1954	Total 1953	Deprec. and Retirements	Maint. Equipment: Total 1954	Total 1953	Deprec. and Retirements	Traffic	Transportation	Total 1954	Total 1953	Operating ratio 1954	Operating ratio 1953	Net from railway operation	Railway tax accruals	Net railway operating income 1954	Net railway operating income 1953
Colorado & Southern	Oct.	724	1,156	71	1,379	1,418	181	202	45	251	175	41	29	486	1,011	970	73.3	68.4	368	175	163	190
	10 mos.	728	9,771	706	11,745	13,469	1,719	1,868	246	2,222	1,765	414	310	4,402	9,262	9,062	78.9	67.3	2,483	1,149	1,088	1,909
Ft. Worth & Denver	Oct.	1,038	2,074	125	2,362	1,705	823	415	33	308	233	44	58	734	2,022	1,421	85.6	83.4	341	4	92	107
	10 mos.	1,038	15,663	1,375	18,697	19,028	3,448	3,118	867	2,733	2,652	434	586	6,303	14,087	13,697	75.3	72.0	4,610	1,191	2,112	2,345
Colorado & Wyoming	Oct.	40	181	....	279	286	27	19	2	28	42	11	2	98	168	176	59.9	61.7	112	55	55	45
	10 mos.	40	1,320	....	2,235	2,904	174	178	20	273	358	114	15	898	1,477	1,713	66.1	58.9	757	396	345	470
Columbus & Greenville	Oct.	168	172	1	181	208	40	36	4	23	38	6	5	55	140	185	77.6	89.0	40	29	10	14
	10 mos.	168	1,473	1	1,549	1,759	357	352	37	252	278	62	46	483	1,326	1,396	85.6	79.4	224	181	38	132
Delaware & Hudson	Oct.	793	3,801	154	4,096	4,823	881	737	201	807	750	179	85	1,541	3,529	3,397	86.2	70.4	567	298	240	1,206
	10 mos.	793	37,291	1,601	40,398	46,541	6,238	7,690	817	7,823	8,122	1,800	873	15,279	32,282	34,886	79.9	75.0	8,115	2,871	4,732	8,490
Delaware, Lackawanna & Western	Oct.	962	5,352	723	6,774	7,827	764	947	134	993	1,338	315	186	3,152	5,392	5,883	79.6	75.2	1,382	569	709	1,005
	10 mos.	962	50,900	7,666	65,004	75,838	8,002	9,007	1,395	10,781	12,791	3,170	1,792	30,717	54,097	58,207	83.2	76.8	10,907	4,862	5,253	8,700
Denver & Rio Grande Western	Oct.	2,164	6,507	198	6,940	7,848	639	645	89	985	1,097	277	194	2,040	4,132	4,529	59.6	57.7	2,807	1,254	1,510	1,442
	10 mos.	2,165	55,923	2,427	60,658	71,685	7,991	9,391	1,179	9,463	11,518	2,852	1,882	18,266	40,489	46,759	66.8	65.2	20,169	8,768	11,506	10,771
Detroit & Mackinac	Oct.	232	181	....	184	217	40	47	2	27	24	9	4	39	125	129	67.9	59.5	59	30	27	37
	10 mos.	232	1,619	2	1,650	1,814	400	417	30	235	238	94	49	371	1,173	1,180	71.1	65.0	477	284	228	296
Detroit & Toledo Shore Line	Oct.	50	529	....	577	659	79	87	6	63	67	18	17	181	355	391	61.5	59.3	222	60	54	34
	10 mos.	50	5,720	....	6,184	7,285	797	836	34	588	637	179	168	1,885	3,577	3,899	57.8	53.5	2,607	821	706	1,024
Detroit, Toledo & Ironton	Oct.	464	1,121	....	1,182	2,038	205	271	21	216	310	96	47	430	967	1,216	81.8	59.7	215	42	212	389
	10 mos.	464	13,906	2	14,449	19,040	2,632	2,499	233	2,600	2,625	973	374	4,484	10,769	13,275	74.5	69.7	3,680	1,391	2,368	2,524
Duluth, Missabe & Iron Range	Oct.	567	3,131	1	3,848	7,094	511	591	96	546	774	137	9	1,228	2,409	3,440	62.6	48.5	1,439	753	672	1,285
	10 mos.	567	31,865	8	37,589	59,065	5,205	6,098	668	6,861	7,333	1,106	99	11,588	24,899	31,243	66.2	52.9	12,690	6,646	5,842	9,461
Duluth, South Shore & Atlantic	Oct.	553	563	4	597	748	132	175	11	113	143	23	28	195	490	590	82.2	78.8	107	30	64	87
	10 mos.	553	5,390	48	5,769	7,060	1,327	1,745	103	1,231	1,487	232	273	1,989	5,046	5,966	87.5	84.5	723	287	340	456
Duluth, Winnipeg & Pacific	Oct.	175	458	1	466	401	77	94	4	66	86	2	6	186	343	390	73.6	97.3	123	34	25	—79
	10 mos.	175	4,551	9	4,632	4,239	789	895	43	698	775	21	55	2,100	3,717	3,740	80.3	88.2	915	361	—168	—409
Elgin, Joliet & Eastern	Oct.	236	2,654	....	3,420	4,562	189	422	26	452	758	113	35	1,314	2,169	3,050	63.4	66.9	1,250	255	895	321
	10 mos.	236	28,707	....	35,781	46,801	2,403	3,339	251	12,766	9,045	1,143	351	13,668	30,893	30,644	86.3	65.4	4,887	2,251	584	3,982
Erie	Oct.	2,225	11,955	520	13,467	16,356	1,537	2,348	266	2,082	2,226	514	371	5,773	10,408	11,797	77.3	72.1	3,059	1,165	1,247	1,965
	10 mos.	2,224	111,086	5,686	127,106	154,357	18,284	21,634	2,465	20,823	21,744	5,082	3,549	55,096	104,052	114,142	81.9	73.9	23,054	6,103	10,518	16,465
Florida East Coast	Oct.	571	1,524	242	1,923	1,957	456	418	42	538	583	78	77	927	2,148	2,035	111.7	104.0	—225	186	—642	—387
	10 mos.	571	18,914	5,007	26,038	27,429	4,423	3,773	441	5,005	5,318	778	783	10,320	22,226	21,610	85.4	78.8	3,813	1,886	58	2,450
Georgia Railroad	Oct.	321	625	20	730	818	113	125	13	120	135	33	30	282	576	648	80.1	79.2	143	37	137	163
	10 mos.	321	6,000	246	6,974	8,068	1,217	1,216	104	1,306	1,363	328	333	2,991	6,189	6,523	88.7	80.9	785	360	775	1,452
Georgia & Florida	Oct.	332	258	....	261	292	72	95	3	30	37	8	17	80	216	260	82.6	89.3	46	14	16	—10
	10 mos.	335	2,794	....	2,827	3,336	914	1,038	117	367	379	76	191	888	2,526	2,747	89.3	82.4	301	148	—84	108
Grand Trunk Western	Oct.	952	4,032	233	4,613	4,782	632	671	53	732	756	91	79	2,139	3,791	3,940	82.2	82.4	822	314	112	230
	10 mos.	952	41,492	2,232	47,061	51,960	7,086	7,463	539	8,326	8,616	901	789	21,666	39,750	41,305	84.5	79.5	7,311	3,170	312	4,032
Can. Natl. Lines in New Eng.	Oct.	172	120	4	160	214	87	66	16	29	54	....	3	152	282	293	176.1	136.7	—122	25	—210	—156
	10 mos.	172	1,586	72	1,982	2,248	744	708	104	308	431	1	27	1,450	2,668	2,776	134.6	123.5	—686	249	—1,523	—1,305
Great Northern	Oct.	8,308	20,923	789	23,397	27,140	3,752	3,669	720	3,278	3,841	714	403	7,507	15,796	16,938	67.5	62.4	7,601	3,617	3,354	4,393
	10 mos.	8,306	185,509	9,168	210,048	226,207	40,184	40,491	3,644	35,780	38,045	7,042	4,076	69,738	158,479	163,118	75.4	72.1	51,569	25,409	19,974	24,955
Green Bay & Western	Oct.	224	331	....	336	434	99	102	4	51	48	8	23	105	295	306	87.8	70.6	41	20	—1	35
	10 mos.	224	3,561	....	3,627	3,942	936	884	40	485	417	79	229	1,061	2,886	2,615	79.6	66.3	741	351	138	429
Gulf, Mobile & Ohio	Oct.	2,758	5,998	297	6,795	7,986	1,145	1,070	79	1,156	1,397	281	290	2,028	4,970	5,391	73.2	67.5	1,825	653	835	1,009
	10 mos.	2,761	59,403	3,375	67,484	78,263	10,224	11,753	747	12,954	14,107	2,796	2,760	20,934	50,418	54,418	74.7	69.5	17,066	6,769	7,243	9,462
Illinois Central	Oct.	6,537	20,974	1,675	24,955	29,045	3,546	3,928	380	3,535	4,274	749	520	8,755	17,329	19,078	69.4	65.7	7,626	3,130	3,743	3,804
	10 mos.	6,537	189,881	17,792	230,490	258,690	36,060	38,625	3,982	38,961	41,117	7,156	5,303	84,843	175,516	183,838	76.1	71.1	54,974	28,388	21,598	28,611
Illinois Terminal	Oct.	355	827	52	1,000	1,079	108	124	25	143	186	42	46	374	728	816	72.8	75.6	272	127	103	135
	10 mos.	355	7,614	537	9,092	10,641	1,395	1,565	264	1,508	1,838	418	451	3,763	7,736	8,396	85.1	78.9	1,355	583	546	1,015
Kansas City Southern	Oct.	891	2,946	95	3,381	3,935	336	624	45	366	617	92	88	1,032	1,941	2,638	57.4	67.1	1,441	629	635	593
	10 mos.	891	29,912	1,108	34,353	40,374	3,425	5,332	379	3,811	5,434	908	918	10,452	19,840	24,654	57.8	61.1	14,512	6,358	6,297	6,917
Kansas, Oklahoma & Gulf	Oct.	327	404	....	405	559	74	107	7	27	32	11	28	106	256	307	63.3	54.9	149	59	59	122
	10 mos.	327	4,195	4	4,216	5,734	644	959	73	347	449	113	281	1,135	2,616	3,142	62.1	54.8	1,600	667	612	1,024
Lake Superior & Ishpeming	Oct.	156	392	....	476	596	51	85	13	49	66	16	2	96	209	289	43.9	48.6	267	38	242	262
	10 mos.	156	2,579	....	3,135	4,616	585	626	131	586	596	160	20	782	2,086	2,371	66.5	51.4	1,049	420	753	1,237
Lehigh & Hudson River	Oct.	96	288	....	288	332	42	43	2	28	29	8	14	91	186	189	64.8	56.9	101	40	35	51
	10 mos.	96	2,697	....	2,703	2,936	406	418	26	298	294	85	138	880	1,841	1,830	68.1	62.3	863	310	291	396
Lehigh & New England	Oct.	180	650	....	655	878	81	100	6	155	152	40	16	184	470	525	71.8	59.8	184	164	131	205
	10 mos.	180	5,543	....	5,590	6,936	806	882	71	1,408	1,339	397	136	1,887	4,626	4,770	82.8	68.8	964	785	851	1,430
Lehigh Valley	Oct.	1,163	5,049	276	5,628	6,734	902	861	93	996	1,147	208	144	2,434	4,725	4,945	83.9	73.4	903	235	523	1,048
	10 mos.	1,163	48,374	2,919	54,335	64,572	8,388	8,459	942	9,063	11,025	2,072	1,375	23,596	44,910	48,083	82.7	74.5	9,425	3,565	4,257	9,100
Long Island	Oct.	360	1,072	3,645	4,952	4,723	666	624	87	882	937	125	15	2,357	4,079	4,079	82.4	86.4	873	419	151	—59
[illegible]	10 mos.	360	10,599	33,475	46,365	46,873	6,655	6,415	908	9,304	8,967	1,249	155	24,344	42,163	39,817	90.9	84.9	4,202	3,440	—2,169	389

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1954

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total 1954	Total (inc. misc.) 1953	Operating Expenses: Maint. Way and Structures: Total 1954	Total 1953	Deprec. and Retirements	Maint. Equipment: Total 1954	Total 1953	Deprec. and Retirements	Traffic	Transportation	Total 1954	Total 1953	Operating ratio 1954	Operating ratio 1953	Net from railway operation	Railway tax accruals	Net railway operating income 1954	Net railway operating income 1953
Louisiana & Arkansas	Oct.	752	1,970	47	2,122	2,659	284	532	19	246	393	86	77	604	1,283	1,728	60.5	65.0	839	360	428	500
	10 mos.	752	19,839	531	21,245	25,546	2,683	4,197	212	2,623	3,068	882	743	5,919	12,754	15,022	60.0	58.8	8,491	3,539	4,326	5,297
Louisville & Nashville	Oct.	4,734	14,769	726	16,668	19,944	2,751	2,908	228	3,465	3,892	944	341	5,895	13,127	14,391	78.8	72.2	3,542	2,299	2,300	3,092
	10 mos.	4,735	141,605	9,142	162,563	197,399	27,732	27,646	2,290	36,658	38,591	9,405	3,451	59,899	134,474	141,339	82.7	71.6	28,089	15,801	18,991	29,348
Maine Central	Oct.	944	1,613	77	1,838	2,120	378	449	29	333	355	78	18	701	1,523	1,626	82.9	76.7	315	143	163	215
	10 mos.	944	17,808	1,070	20,429	21,396	4,448	4,525	288	3,852	3,539	768	202	7,365	16,797	16,521	82.2	77.2	3,632	1,584	1,317	2,112
Midland Valley	Oct.	334	193	....	196	226	42	58	5	11	24	4	5	55	122	155	62.1	68.8	74	19	35	18
	10 mos.	334	1,707	....	1,740	2,172	403	481	53	112	172	38	52	535	1,190	1,380	68.4	63.5	550	216	203	259
Minneapolis & St. Louis	Oct.	1,397	1,531	5	1,612	2,160	328	344	25	264	291	76	97	616	1,394	1,551	86.5	71.8	218	126	82	272
	10 mos.	1,397	16,321	51	17,037	18,604	2,958	3,349	300	2,667	2,694	761	1,052	5,826	13,551	14,364	79.5	77.2	3,486	1,739	1,621	1,729
Minn., St. Paul & S. Ste. Marie	Oct.	3,222	3,243	67	3,493	3,711	707	941	50	527	759	104	78	1,295	2,724	3,290	78.0	88.7	769	489	293	269
	10 mos.	3,222	30,342	855	33,047	34,694	7,027	7,770	499	6,139	6,802	1,008	803	12,542	27,842	29,776	84.2	85.8	5,205	2,659	2,295	1,928
Mississippi Central	Oct.	148	195	....	200	225	50	73	2	25	28	6	14	49	148	177	74.2	78.9	51	22	21	17
	10 mos.	148	1,972	—1	2,011	2,315	554	570	24	265	312	60	138	503	1,561	1,707	77.6	73.7	450	171	185	238
Missouri Illinois	Oct.	172	439	....	441	433	66	94	4	56	75	26	13	109	255	333	57.7	76.7	186	51	139	75
	10 mos.	172	4,269	1	4,297	4,900	745	796	39	756	752	265	98	1,108	2,815	2,991	65.5	61.0	1,482	543	980	850
Missouri-Kansas-Texas Lines	Oct.	3,241	5,096	314	5,987	7,048	948	1,159	114	896	1,147	239	242	2,297	4,689	5,387	78.3	76.4	1,298	391	588	672
	10 mos.	3,241	52,078	2,752	60,524	72,379	8,888	11,012	1,022	9,167	11,165	2,387	2,436	23,533	47,071	52,479	77.8	72.5	13,453	3,987	5,805	8,103
Missouri Pacific	Oct.	6,928	15,635	705	18,177	20,460	2,910	4,018	367	3,091	4,212	805	415	6,533	13,531	16,758	74.4	81.9	4,646	1,109	3,059	2,055
	10 mos.	6,925	150,267	8,508	175,700	201,120	30,088	37,893	3,007	31,826	40,288	7,997	4,689	66,658	139,809	161,969	79.6	80.5	35,890	10,335	19,150	20,827
International-Great Northern	Oct.	1,103	2,264	130	2,658	2,923	488	641	33	487	552	123	63	1,110	2,267	2,601	85.3	89.0	391	87	236	221
	10 mos.	1,103	22,660	1,441	26,400	31,787	5,030	6,874	392	4,749	5,746	1,190	613	11,068	22,658	26,678	85.8	83.9	3,742	1,032	2,111	3,139
Gulf Coast Lines	Oct.	1,724	2,680	76	3,001	3,382	597	778	39	477	548	101	89	1,091	2,390	2,724	79.6	80.5	610	7	460	418
	10 mos.	1,724	30,631	807	33,665	36,352	6,716	8,234	574	5,067	5,433	1,082	918	11,457	25,612	27,769	76.0	76.3	8,052	1,048	4,939	4,386
Monongahela	Oct.	177	488	....	491	635	95	101	16	66	72	14	1	169	336	383	68.5	60.3	155	24	6	56
	10 mos.	177	4,707	....	4,740	6,694	741	1,200	160	632	707	139	8	1,662	3,145	4,238	66.4	63.3	1,595	273	145	413
Montour	Oct.	51	149	....	158	286	14	36	2	44	72	18	1	57	124	199	78.4	69.7	34	26	47	92
	10 mos.	51	1,305	....	1,390	2,299	146	328	25	483	770	184	10	548	1,283	1,921	92.3	83.5	107	332	428	544
Nashville, Chatt. & St. Louis	Oct.	1,043	2,475	101	2,903	3,507	490	598	44	468	519	138	110	1,165	2,352	2,452	81.0	69.9	551	258	307	517
	10 mos.	1,035	25,034	1,279	29,546	33,812	4,837	5,243	430	4,125	4,959	1,372	1,168	11,200	22,525	24,000	76.2	71.0	7,021	3,131	3,613	4,963
New York Central	Oct.	10,713	42,113	8,131	57,880	71,415	6,931	10,070	1,037	9,467	14,076	2,213	924	25,973	46,430	58,497	80.2	81.9	11,449	4,812	4,754	5,897
	10 mos.	10,713	421,123	88,030	584,899	695,635	80,823	95,753	10,282	111,216	139,790	23,591	10,680	265,601	501,473	571,845	85.7	82.2	83,427	46,898	17,029	52,744
Pittsburgh & Lake Erie	Oct.	221	2,459	61	2,639	4,203	363	604	41	769	1,100	288	75	1,077	2,494	3,331	94.5	79.3	144	373	789	1,191
	10 mos.	221	25,407	647	27,573	42,677	4,139	5,397	411	8,973	10,657	2,889	764	10,977	27,049	32,929	98.1	77.2	524	2,352	6,683	11,827
New York, Chicago & St. Louis	Oct.	2,185	12,454	136	13,071	15,014	1,427	1,746	170	1,884	2,314	360	325	4,658	8,738	9,678	66.9	64.5	4,333	2,219	1,780	2,192
	10 mos.	2,185	114,539	1,512	120,185	141,599	13,780	16,865	1,539	19,489	22,192	3,526	3,166	44,126	84,987	94,969	70.7	67.1	35,198	17,412	14,227	19,160
New York, New Haven & Hartford	Oct.	1,769	6,867	3,902	12,245	14,033	1,336	2,371	289	1,897	2,170	441	254	5,583	9,698	11,358	79.2	80.9	2,947	788	729	771
	10 mos.	1,770	68,948	41,159	124,596	137,833	16,939	22,184	2,709	18,742	20,318	4,121	1,967	55,678	100,979	110,170	81.0	79.9	23,617	8,391	5,703	8,014
New York Connecting	Oct.	21	272	....	297	353	125	125	25	70	19	....	....	89	287	230	96.6	65.2	10	86	—75	41
	10 mos.	21	2,676	....	2,891	3,463	1,061	959	251	241	248	....	....	811	2,145	2,134	74.2	61.6	745	838	—96	547
New York, Ontario & Western	Oct.	541	467	....	477	584	124	147	17	95	87	22	25	245	519	567	108.9	97.1	—43	36	—150	—101
	10 mos.	541	4,818	....	4,956	6,029	1,219	1,326	195	884	875	225	236	2,516	5,155	5,436	104.0	90.2	—200	365	—1,304	—538
New York, Susquehanna & Western	Oct.	120	418	44	483	507	49	59	5	53	64	13	8	192	327	374	67.6	73.8	156	36	54	38
	10 mos.	120	4,205	391	4,793	4,870	497	575	61	605	601	127	81	2,162	3,622	3,602	75.6	74.0	1,171	345	265	429
Norfolk & Western	Oct.	2,133	14,373	301	15,321	18,138	1,736	2,304	315	2,759	3,513	678	332	4,443	9,905	11,706	64.6	64.5	5,416	3,516	3,034	3,453
	10 mos.	2,134	129,499	3,354	139,259	160,322	21,250	23,039	3,118	30,119	33,832	6,741	3,277	44,115	104,961	114,277	75.4	71.3	34,298	23,386	18,350	23,648
Norfolk Southern	Oct.	612	903	....	918	1,011	200	215	13	114	108	28	48	273	691	708	75.2	70.1	228	85	70	98
	10 mos.	617	8,083	....	8,194	9,329	1,819	2,017	131	1,221	1,187	278	488	2,564	6,662	7,056	81.3	75.6	1,532	635	474	728
Northern Pacific	Oct.	6,866	14,410	627	16,133	16,408	1,817	2,491	268	2,588	3,081	475	437	6,197	11,773	12,780	73.0	77.9	4,360	1,985	2,388	1,877
	10 mos.	6,866	125,210	6,066	142,431	151,819	22,680	26,473	2,670	27,210	28,624	4,604	3,566	58,257	119,237	123,161	83.7	81.1	23,194	13,344	11,945	13,440
Northwestern Pacific	Oct.	331	1,270	5	1,300	1,163	273	302	24	62	110	4	5	340	699	792	53.8	68.1	601	269	188	133
	10 mos.	331	11,535	40	11,855	11,152	3,097	2,995	211	928	1,095	42	55	3,630	7,833	8,216	66.1	73.7	4,022	1,478	912	675
Oklahoma City-Ada-Atoka	Oct.	132	84	....	85	109	21	23	2	2	2	....	2	19	48	51	56.7	46.8	37	16	7	22
	10 mos.	132	1,021	....	1,032	908	207	218	27	15	14	....	19	202	495	491	47.9	54.1	537	216	189	146
Pennsylvania	Oct.	10,051	52,615	9,730	70,795	89,403	7,959	12,434	1,405	13,779	19,578	2,937	1,240	32,140	58,044	73,557	82.0	82.3	12,751	4,282	6,331	6,633
	10 mos.	10,051	527,187	105,286	710,035	880,976	82,289	118,081	14,245	153,441	194,470	29,620	12,339	319,780	597,540	722,091	84.2	82.0	112,494	48,772	40,290	70,392
Pennsylvania-Reading Seashore Lines	Oct.	358	574	119	715	880	195	217	20	96	107	22	11	456	791	889	110.6	101.0	—76	90	—319	—302
	10 mos.	358	5,859	1,830	7,923	8,677	1,939	2,283	237	1,030	1,048	218	120	4,944	8,424	9,372	106.3	108.0	—502	893	—2,869	—3,295

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF OCTOBER AND TEN MONTHS OF CALENDAR YEAR 1954

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1954	Total (inc. misc.) 1953	Operating Expenses: Maint. Way and Structures: Total 1954	Total 1953	Deprec. and Retirements	Maint. Equipment: Total 1954	Total 1953	Deprec. and Retirements	Traffic	Transportation	Total 1954	Total 1953	Operating ratio 1954	Operating ratio 1953	Net from railway operation	Railway tax accruals	Net railway operating income 1954	Net railway operating income 1953
Pittsburg & Shawmut	Oct.	97	164	....	167	216	33	54	4	62	49	12	4	39	147	167	88.2	77.3	20	7	36	56
	10 mos.	97	1,563	....	1,573	2,029	330	499	36	492	47	118	46	376	1,351	1,645	85.9	81.1	223	54	476	608
Pittsburgh & West Virginia	Oct.	132	662	....	664	740	94	110	24	105	187	36	62	181	481	570	72.5	77.1	183	27	141	109
	10 mos.	132	6,073	....	6,104	7,734	976	1,335	235	1,200	1,818	361	615	1,693	4,848	5,907	79.4	76.4	1,256	253	920	1,192
Reading	Oct.	1,305	8,348	539	9,502	11,648	1,270	1,820	233	1,934	2,351	432	157	3,488	7,249	8,895	76.3	76.4	2,254	650	1,280	1,538
	10 mos.	1,305	78,544	5,520	90,334	111,828	11,315	16,877	2,024	17,820	22,583	4,362	1,573	36,423	71,208	85,932	78.8	76.8	19,127	6,237	11,224	14,331
Richmond, Fredericksburg & Potomac	Oct.	118	1,313	347	1,979	2,179	289	372	25	333	291	70	22	692	1,462	1,519	73.9	69.7	517	262	178	268
	10 mos.	118	13,753	5,002	21,740	23,168	2,972	3,799	253	3,336	2,972	700	224	7,280	15,124	15,648	69.6	67.5	6,616	3,022	2,422	2,681
Rutland	Oct.	392	338	....	385	464	73	83	9	49	58	12	22	157	327	375	84.9	80.9	58	25	6	26
	10 mos.	392	3,371	—2	3,784	4,210	767	769	72	541	624	123	230	1,591	3,392	3,802	89.7	90.3	392	250	—122	—92
Sacramento Northern	Oct.	265	258	....	272	278	47	85	5	16	11	3	2	85	172	225	63.4	81.0	100	19	52	—4
	10 mos.	265	2,137	1	2,215	3,987	660	623	87	150	200	36	23	746	1,693	1,843	76.4	46.2	523	178	140	1,136
St. Louis-San Francisco	Oct.	4,601	8,354	378	9,483	11,392	1,392	1,616	169	1,566	1,811	526	341	3,763	7,609	8,374	80.2	73.5	1,874	854	1,124	1,441
	10 mos.	4,601	83,948	4,310	95,733	108,405	15,050	16,519	1,512	16,246	17,675	5,162	3,509	37,519	77,617	81,415	81.1	75.1	18,116	7,739	8,707	12,324
St. Louis, San Francisco & Texas	Oct.	159	336	8	372	395	49	57	4	27	33	1	26	161	275	284	73.9	71.9	97	28	14	24
	10 mos.	159	3,621	44	3,882	4,396	469	607	53	322	373	11	257	1,530	2,691	2,956	69.3	67.2	1,192	417	283	408
St. Louis Southwestern Lines	Oct.	1,562	4,678	16	4,893	5,960	718	1,240	59	640	858	106	184	1,470	3,179	4,104	65.0	68.9	1,174	549	1,009	1,171
	10 mos.	1,562	46,834	178	48,791	61,474	7,029	10,525	544	6,304	7,105	1,058	1,758	15,161	32,053	37,676	65.7	61.3	16,737	8,932	5,447	9,233
Seaboard Air Line	Oct.	4,064	10,102	687	11,784	12,075	1,825	1,856	265	2,341	2,374	533	353	3,928	8,931	9,056	75.8	75.0	2,853	1,067	1,705	1,732
	10 mos.	4,072	103,466	10,110	123,816	131,492	18,779	20,319	1,952	22,411	23,256	5,343	3,564	40,867	90,632	94,208	73.2	71.7	33,185	12,544	18,622	19,986
Southern Railway	Oct.	6,286	18,817	933	21,477	23,764	2,936	3,434	219	3,680	4,444	779	389	6,498	14,440	16,719	67.2	70.4	7,037	3,462	3,176	3,124
	10 mos.	6,286	173,884	13,081	204,291	231,144	29,391	30,767	2,481	37,185	40,952	7,881	4,194	66,078	146,709	156,052	71.8	67.5	57,582	27,252	26,666	34,050
Alabama Great Southern	Oct.	326	1,263	47	1,451	1,552	223	247	31	314	329	57	35	458	1,118	1,168	77.1	75.3	333	130	189	236
	10 mos.	326	12,452	649	14,463	16,692	2,267	2,440	304	2,841	3,444	595	343	4,467	10,710	11,818	74.1	70.8	3,752	1,496	1,926	2,472
Cinn., New Orleans & Texas Pacific	Oct.	337	3,120	99	3,422	3,695	442	486	45	597	752	134	74	867	2,120	2,368	62.0	64.1	1,302	792	541	631
	10 mos.	337	31,059	1,535	34,662	39,745	4,771	4,448	434	5,969	8,020	1,319	729	8,703	21,627	24,131	62.4	60.7	13,034	7,134	5,863	7,120
Georgia Southern & Florida	Oct.	475	650	27	741	821	216	150	10	72	60	7	16	266	608	500	82.0	61.0	133	39	—48	64
	10 mos.	413	6,444	667	7,852	8,277	1,956	1,652	91	683	724	65	190	2,620	5,881	5,191	74.9	62.7	1,971	394	18	622
New Orleans & Northeastern	Oct.	203	859	31	962	1,161	183	196	19	183	135	41	20	213	658	638	68.4	54.9	304	184	125	225
	10 mos.	203	8,806	438	9,930	11,568	1,989	1,673	205	1,465	1,260	413	203	2,344	6,579	5,863	66.3	50.7	3,351	2,043	1,316	2,064
Southern Pacific	Oct.	8,121	38,400	2,437	43,689	47,342	5,588	5,323	631	9,332	10,040	1,886	939	17,253	35,192	35,728	80.6	75.5	8,497	3,469	4,011	4,621
	10 mos.	8,120	358,432	28,722	414,747	464,948	50,831	54,875	5,098	88,202	95,424	18,613	8,564	165,290	333,252	353,551	80.4	76.0	81,495	36,017	33,954	41,598
Texas & New Orleans	Oct.	4,288	9,249	465	10,421	12,385	2,015	1,741	179	1,516	1,694	147	303	3,871	8,248	8,497	79.1	68.6	2,173	694	409	1,061
	10 mos.	4,290	93,232	5,305	105,560	122,835	19,394	20,422	1,418	15,020	16,421	1,441	2,756	39,655	82,568	87,179	78.2	71.0	22,992	8,097	5,045	10,222
Spokane International	Oct.	152	254	....	267	294	27	63	6	27	27	10	5	74	144	180	54.0	61.4	123	45	54	47
	10 mos.	152	2,655	6	2,791	2,937	510	614	27	258	236	96	55	728	1,675	1,716	60.0	58.4	1,116	326	532	579
Spokane, Portland & Seattle	Oct.	944	2,397	66	2,629	2,439	419	416	48	367	384	106	28	834	1,739	1,800	66.2	73.8	889	204	551	266
	10 mos.	944	22,127	796	24,353	26,627	3,573	3,914	502	3,811	3,607	1,067	292	8,223	16,844	16,889	69.2	63.4	7,509	2,204	4,475	5,235
Tennessee Central	Oct.	286	392	1	411	489	75	94	6	63	73	22	13	136	313	343	76.3	70.3	97	26	23	74
	10 mos.	286	3,560	14	3,771	4,309	760	913	58	587	677	221	126	1,259	2,986	3,352	79.2	77.8	785	245	176	336
Texas & Northern	Oct.	8	90	....	94	109	4	5	....	7	9	2	1	7	24	30	25.3	27.6	70	2	41	16
	10 mos.	8	718	....	756	1,263	39	49	4	83	75	25	10	78	259	295	34.3	23.3	497	13	288	276
Texas & Pacific	Oct.	1,831	5,534	327	6,448	7,198	852	1,180	91	999	1,025	247	174	2,057	4,403	5,091	68.3	70.7	2,045	1,008	779	1,046
	10 mos.	1,832	55,144	3,451	63,975	72,879	10,074	10,525	1,031	10,771	11,266	2,444	1,923	21,431	47,663	49,633	74.5	68.1	16,312	6,267	6,550	10,604
Texas Mexican	Oct.	161	182	....	195	276	50	60	6	36	26	10	11	61	181	174	92.8	63.0	14	....	—6	25
	10 mos.	161	2,060	....	2,199	2,828	552	548	60	285	315	97	91	619	1,745	1,796	79.4	63.5	454	163	80	312
Toledo, Peoria & Western	Oct.	239	612	....	619	728	75	87	6	56	112	11	49	136	358	449	57.8	61.6	261	117	83	82
	10 mos.	239	5,698	....	5,786	6,599	936	1,096	65	557	582	112	456	1,317	3,651	3,913	63.1	59.3	2,135	905	646	837
Union Pacific	Oct.	9,816	39,369	2,289	44,811	49,655	5,894	5,763	467	7,490	8,591	1,603	866	16,034	32,456	34,518	72.4	69.5	12,356	5,647	4,156	4,383
	10 mos.	9,817	342,739	26,893	399,977	443,185	51,770	61,612	4,649	73,630	83,310	14,743	10,060	145,200	302,248	334,141	75.6	75.4	97,729	53,604	24,862	24,667
Utah	Oct.	99	116	....	116	135	18	23	2	27	34	9	1	37	91	107	78.4	79.2	25	9	23	31
	10 mos.	105	825	....	826	1,063	152	194	19	368	402	90	7	300	903	1,045	109.3	98.3	—77	89	—136	26
Virginian	Oct.	611	3,109	1	3,218	3,431	444	576	61	628	814	201	45	671	1,878	2,392	58.4	69.7	1,340	812	791	660
	10 mos.	611	29,011	13	30,108	32,052	4,276	4,569	623	6,443	7,458	1,948	454	6,940	19,012	21,447	63.1	66.9	11,097	6,415	6,485	6,132
Wabash	Oct.	2,393	8,207	419	9,388	11,713	1,122	1,411	103	1,180	1,452	361	293	3,881	6,892	7,848	73.4	67.0	2,496	792	1,123	1,512
	10 mos.	2,393	79,628	4,004	90,890	102,505	11,843	13,050	1,308	13,250	13,254	3,608	3,038	38,765	70,948	74,513	78.1	72.7	19,942	6,357	7,366	11,376
Ann Arbor	Oct.	294	720	3	731	839	83	100	6	132	141	30	27	318	578	650	79.1	77.5	153	61	65	72
	10 mos.	294	7,089	3	7,261	7,931	945	1,027	70	1,335	1,261	303	285	3,249	6,024	5,961	83.0	75.2	1,237	457	481	854
Western Maryland	Oct.	852	3,261	3	3,487	4,439	591	543	53	644	797	219	100	1,070	2,604	2,829	74.7	63.7	883	266	780	1,038
	10 mos.	857	32,328	38	34,433	42,768	4,954	5,448	625	6,517	7,239	2,170	958	11,104	25,482	27,575	74.0	64.5	8,951	4,123	6,467	9,147
Western Pacific	Oct.	1,193	4,255	152	4,494	5,528	636	667	73	661	684	177	194	1,238	2,985	3,240	66.4	58.6	1,510	477	891	1,004
	10 mos.	1,193	37,183	2,065	40,153	50,611	7,231	8,177	805	6,519	6,712	1,731	1,951	12,787	30,905	33,442	77.0	66.1	9,248	3,891	4,672	7,517
Wisconsin Central	Oct.	1,042	2,288	41	2,483	2,782	343	361	38	359	498	78	70	994	1,866	2,077	75.2	74.7	616	156	337	301
	10 mos.	1,042	22,361	409	24,230	27,366	4,046	3,891	377	4,063	4,450	772	711	9,898	19,810	20,445	81.8	74.7	4,420	1,321	1,694	2,889

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CHICAGO

Where Begin in Rationalizing the Rates?

"There are many millions of B.T.U.'s moving by wire and pipeline which could move more economically by rail—only for the failure of the railroads to reflect the inherent economy of rail movement in the rates they charge their customers."

Such, in substance, was the assertion made recently to the editor of this paper by one of the country's leading utility executives. Getting down to details on coal rates presents questions of such baffling complexity that most railroad managements have considered it beyond their province, and one which must be left to the specialists. Unfortunately, however, these rates are becoming an issue which can no longer be satisfactorily resolved by resort to precedent; and a new look at the problem, from the point of view of long-run railroad welfare, makes unavoidable some considerable study of it at the top policy level.

A clear exposition of the situation, intelligible to the layman, has recently become available in a monograph, issued in pamphlet form by the College of Commerce of West Virginia University at Morgantown. The author is Thomas C. Campbell, associate professor of economics at the university, and the booklet is entitled "The Bituminous Coal Freight-Rate Structure—an Economic Appraisal." The traditional rate relationships historically maintained by the railroads for the principal consuming markets are clearly set forth by Dr. Campbell—along with a report on some of the difficult problems which have recently arisen regarding these relationships, due especially to the impact of competition.

As long as practically none of this traffic could move in any other way than by rail, it was perfectly possible for the railroads to make arbitrary differences (i.e., not based on cost variations) in their charges to different producing areas (if the regulators would go along, which they did). Now, however, unregulated barges and unregulated (private or contract) trucks have invaded this traffic—for carefully selected movements, of course. Nobody seriously considers the possibility that such unregulated carriers are either going to be effectively regulated or put out of business.

How, in the light of such undisputed facts, applying not only to coal but to much other traffic, can the railroads maintain the traditional differentials among the various producing areas? They can be maintained "on paper," of course. But, if that course is followed, then is it not inevitable that the railroads are going to deny themselves a lot of traffic which they could handle at a profit? The facts of this situation, if we understand them correctly, raise a couple of fundamental questions of top-level management policy, viz.: (1) *Should railroad rates be made—as they often have been in the past and still are—with the primary aim of helping railroad patrons with their marketing problems? And (2), is it any longer possible to pursue this objective, in the light of present competition, and still get for rail movement all the traffic which could be hauled by rail at a profit?*

It is undoubtedly true that getting the right answer to these and other rate questions is greatly complicated by the fact of regulation. But, even if regulation were totally absent, the railroads themselves could not come up with the right answers to these questions without a lot more analysis and discussion than has yet occurred.

In a panel discussion at Boston on December 10 Chairman Jervis Langdon of the Southeastern Railroads reviewed regulatory experience in dealing with interagency competition (as reported elsewhere in this issue). He pointed out the trend of regulatory opinion in many decisions as undertaking the large order of distributing traffic among competing agencies according to the regulators' own views of what is "fair." But not all decisions, as Mr. Langdon pointed out, pursue this questionable objective. There is an outstanding one—the 1945 Automobile Rate Case— in which the statement was made that "there appears no warrant for believing that rail rates . . . should be held up to a particular level to preserve a motor-rate structure, or vice versa."

Mr. Langdon, himself, favors a policy of allowing any form of transportation to publish rates to compete with any other form—subject only to the condition that such rates cover all out-of-pocket costs and make, at least, some contribution to overhead expenses. If that belief accords with sound economics, as we believe it does, then, to become effective it must be "sold" either to the regulators or to Congress, or to both. But railroad managements are hardly going to be able to induce others to believe in, and act upon, this principle, until they first understand it thoroughly themselves; including all its implications. The initiative in finding the right answers to the railroads' rate problem does not lie in the government.

TERRITORY traversed by the new spur track is thickly forested. At the White Pine end is a clearing for a copper processing plant, shown in part at lower left.

DIFFICULT LINE CONSTRUCTION . . .

Long Spur Hits Many Snags

Swampy terrain, unstable soil, prolonged rainfall, winter weather and an early spring all conspired to hinder completion of line by DSS&A to serve large copper mine in Michigan

Unusual difficulties, some seemingly almost insurmountable, were encountered in the construction of a 14½-mile spur track by the Duluth, South Shore & Atlantic to reach an important new copper mine at White Pine, Mich.

The spur, now completed, extends in a generally northerly direction from a connection at Bergland, Mich., with the DSS&A main line. It was built to serve, at its northerly terminus, a mine and processing plant of the White Pine Copper Company, a subsidiary of the Copper Range Company, of Boston. A $70,000,000 project is currently under way to place the mine in production.

Problems from the Beginning

From the outset, difficulties were encountered in locating the spur through the rugged wilderness which had to be penetrated. Initially the idea was to follow an abandoned logging road for about eight miles and then to strike out in the general direction of White Pine, but the old trail proved to have unsatisfactory grades for efficient operation. Consequently only a short stretch of the old logging road was used.

As finally established, the line has a ruling grade of 1 per cent for movements to White Pine and of 1.30 per cent in the opposite direction, compensated for curvature. The width of the roadbed at subgrade level was set at 16 ft for embankments, which have 1 1/2:1 side slopes, and 24 ft in cuts, which allows for a ditch on each side with 1:1 side slopes. Curvature was held to 3 deg or less wherever possible.

As located the line successfully avoids many of the numerous streams in the area. At the crossing of the Cascade river, two lines of 60-in. by 74-in. Armco arch-type pipe were provided and at the crossing of Hill creek a single line of 60-in. by 77-in. arch pipe was inserted. Elsewhere drainage is handled by round corrugated metal pipe varying in size from 18 in. to 60 in.

Construction of the line was started in the spring of 1953. The prevailing warm and dry weather in May and June dried up the ground so that test pits dug in various spots showed dry material down from 4 to 6 ft below the surface and made it difficult to fully appraise the soil conditions in rainy weather. By way of contrast, swampy terrain was encountered on other parts of the proposed right of way, which necessitated bringing in suitable

filling material for construction of the grade. Unfortunately, early in June and continuing throughout the late summer and fall an unusually rainy season was experienced. This resulted in construction difficulties. About five miles out of Bergland, where the grade in some places follows along perpendicular hills 200 to 300 ft high, water was visible wherever the sod was broken. A grade constructed of the material encountered in this area would not, when wet, support a train or, for that matter, even work equipment.

Why Grading Was Difficult

The material in all cuts along the line, with very few exceptions, consisted ot a clay-silt which the Michigan State Highway Department has classified as the "Bergland Series." This material is capable of retaining a very high water content and when wet becomes very plastic. In drying out it has a shrinkage factor of 25 to 30 per cent. This fact, together with the nearly continual rain, made the grading difficult and the progress slow.

In one large cut at Milepost 2, the excavated material had to be wasted entirely and fill from a gravel pit a mile distant had to be borrowed for adjacent embankments. The material from other cuts and side borrows did not stand up very well in embankment and had a tendency to squeeze out under the impact of road equipment and trucks. Even after a light rain, the grading had to be curtailed for days at a stretch as no equipment could move over the muddy and slippery embankments. To make matters worse, quicksand was encountered in several cuts, and, in order to avoid holding up progress unduly, arrangements for draining had to be instituted.

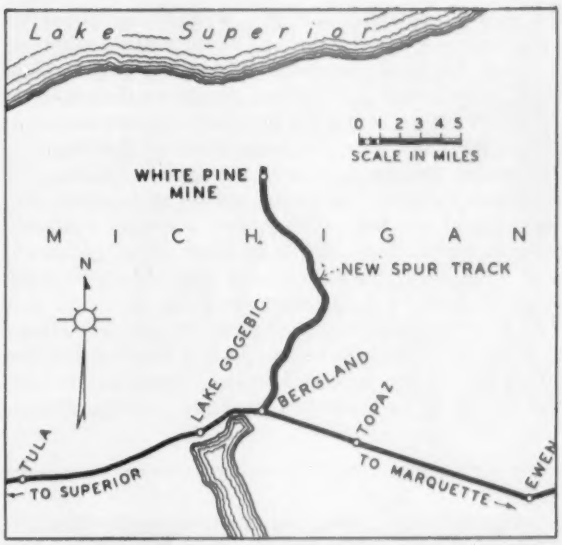
Even though the most modern construction equipment available was used, the unusually wet and rainy season and the multitude of other natural obstacles, coupled with a shortage of labor, made the task almost insurmountable. It was necessary to depend on labor from the surrounding territory as the acute shortage of housing prevented any large influx of labor from towns too far away to permit the men to commute daily.

How Track Was Laid

Laying and ballasting of track was commenced in late summer. In carrying out this work, the contractor used a small diesel locomotive capable of handling from four to six cars. Some rail and ties were unloaded and stockpiled at Bergland and, as the grading progressed, this material was distributed by trucks. The rail consisted of 80- and 85-lb material and all ties were treated hardwood.

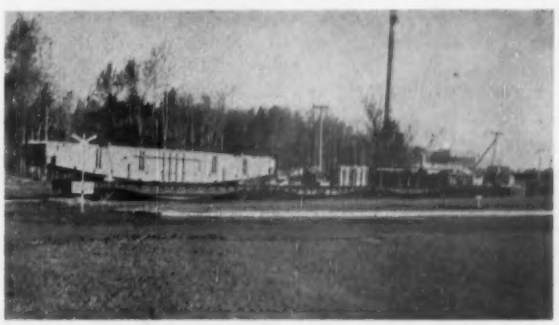
Track laying was also delayed by exceptionally wet weather which made it impossible to work either men or equipment in the prevailing soil conditions. Progress was often reduced to 500 to 750 ft per day in this weather. In November sufficient grade had been made available so that it was feasible for the DSS&A to send an extra gang with outfit cars and Burro crane to Bergland to assist the track-laying contractor. At this time five miles of track had been ballasted and raised and another mile ballasted but not raised. This surfacing was completed by the end of November when freezing weather made it impractical to continue to transport ballast in railroad cars.

Nevertheless, several miles of track remained to be laid



THE NEW SPUR, connecting with the main line of the DSS&A at Bergland, was built to serve one of Michigan's largest copper developments.

LAYING TRACK on frozen subgrade. When an unseasonable thaw occurred the following March some of the track sank down into the mud.



CONSTRUCTION MATERIALS were moved to plant site over new spur. Four flat cars transported a 100-ton overhead crane for installation in one of the buildings.

and it was imperative that this work be completed to avoid delaying construction of the processing plant at the mine. The road was able to obtain some gravel which could be delivered by truck and placed on the grade as subballast before laying the ties, but soon weather conditions prevented even the continuance of this method. This meant that the balance of the track had to be laid on frozen subgrade. In some swampy spots where the embankment was not solidly frozen, the track ties sank down in the mud and had to be lifted up and shimmed with wood slabs. Some shimming also had to be done on rough spots on the frozen embankment.

In the meantime the grading of wye tracks and sidings at White Pine had been completed in November and the last of the grading between Milepost 12 and Milepost 13 was completed in December. By early January, despite heavy snow that required daily clearing by bulldozer, the track laying had progressed as far as Milepost 14, including laying of the wye tracks at White Pine.

A few days later the first commercial freight train, consisting of two cars of cement, was delivered at the concrete mixing plant at White Pine. A permanent section gang with headquarters at Bergland was organized to maintain the track in the future.

More Troubles in Spring

The problems to be faced when the frost would go out in the spring were anticipated. A gravel pit located about midway on the new line was opened up in March with the objective of getting gravel unloaded over the unballasted track before the frost went out. However, the

BY CONNECTING a portable steam generator to heat the water supplied to a special upgrading track and . . .

DELIVERING the 180-degree water at 240-lb pressure through a steam cleaning gun . . .

PRR Cleans Cars Better

. . . IN A THIRD THE TIME

An average box car is cleaned in 10 to 12 minutes on the Pennsylvania's upgrader track in Terre Haute, Ind., using high-pressure hot water heated by a portable Vapor steam generator and delivered to the car interior by a Sellers injector. The method is about three times faster than the cold water cleaning process replaced by the new equipment. The new procedure also does a better job and makes it feasible to clean cars previously passed up because they had been loaded with such commodities as lime, cement or lamp black.

The 40-hp steam generator automatically produces 1,100 pounds of steam per hour at 120-lb pressure. As the steam goes through a venturi in the injector it heats 1,200 gallons of water an hour to 180 degrees and builds up the pressure to 240 lb. When the car man directs the cleaning gun over the interior of the box car, the heat and pressure are strong enough to dig through and wash away the toughest dirt deposits and odors. Detergents may be added to the hot cleaning water.

Full Pressure in Two Minutes

It takes about two minutes to develop full 120-lb working steam pressure when starting out in the morning, and only a few seconds after the unit has been turned off—as when moving it from one car to another. However, the generator can be left on, and the automatic controls will turn it on and off to hold the working steam pressure.

The water for the steam generator is taken from out-

weather became so unseasonably warm in March that the frost went out of the subgrade and let the track down into the mud.

At that time the road was moving cars of steel and cement over the line. These were so heavy that at times the track was forced into the mud so deep that no part of it was visible for as much as one-fourth of a mile in some cuts after a train had passed. At these locations it was necessary to crib up the track with bridge ties and slabs in order to get the trains over. At one spot, about 500 ft in length, it was necessary to crib three times, putting in 1½ ft of cribbing each time. Much of this track had to be surfaced five times between March and May.

Even with all this trouble no serious delays were experienced in delivery of freight to the mine.

This new line makes possible the production of copper ore from a mine pocket some 15 square miles in area and 7 to 12 ft thick, estimated to contain approximately 300,000,000 tons of known copper ore. After this ore is milled and refined, its quantity will be enough to double the copper output of Michigan and add about five per cent annually to the country's supply of copper. Production of copper was scheduled to start on a limited scale this fall.

Less than a mile from the work site is the new town of White Pine with six and one-half miles of streets on which ultimately more than 400 two- and three-bedroom homes will be located. More than 175 dwellings are presently occupied and this model city, when completed, will be entirely self-sufficient with its own hospital, schools, shopping center, and public parks and playgrounds.

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lets spaced about two car lengths apart along the upgrader tracks.

The portability of the rig permits it to go to the car, eliminating extra switching time and cost. It can also be taken to other places in the yard to do such tough jobs as cleaning locomotive running gears and engine blocks before repairs. There is an 80-gallon diesel oil fuel tank, which is enough fuel to run the steam generator at full load all day. Only about 30 gallons of fuel are used on an average day to clean 20 cars because the steam generator makes steam only when the cleaning gun is functioning, and then just in the quantity required.

The cabinet that houses the generator also contains the gasoline tank for the engine that drives the steam generator's water pump, fuel pump and forced draft blower. An electric motor can be substituted for the gasoline engine in yards where electrical outlets are available.

THE TWO-WHEEL trailer contains the steam generator, a small gasoline engine and the fuel supply for both.

THE CLEANING unit is easily moved about by a shop tractor and is protected at night by metal doors.

ON THE FRISCO . . .

Safety Is a Family Affair

It reaches through each man's job to his home, his family, his clubs, his schools and his community—It knits the Frisco family, provides a managerial training ground and harvests a wealth of public good will

On a cold, wet December night in 1947 the newly reorganized safety department of the St. Louis-San Francisco staged its first safety meeting in Thayer, a modest-size division-point community on the Missouri-Arkansas border.

President Clark Hungerford, himself then on the property less than a year, had, a bare two months before, brought Roy P. Hamilton in to head the Frisco's safety department. Mr. Hamilton, a one-time Southern conductor who got into safety work while superintendent of transportation and labor for Republic Steel during the 1930's, was general safety supervisor of the Southern's western lines, and Mr. Hungerford knew the caliber of his work. The Thayer meeting was something of a test, not only for the new department but also for a new concept of safety education which Mr. Hamilton was hoping to establish on the railroad.

Mr. Hamilton had invited employees to bring their families to see entertainment created by their own friends and neighbors. There would be some talks on safety, he added. Employees of the division, their union representatives and not a few members of the Frisco official family became pretty vocal in their skepticism.

One general chairman, darkly suspicious of the whole affair, termed it "just another company-sponsored move." Another told Mr. Hamilton: "All right, I'll come. If you are sincere I and my family will come back again. If not, we won't ever be back." Elsewhere in the division headquarters that day, Mr. Hamilton spotted one of his new safety posters on which had been bitterly scribbled "Law Suit Preventer Number 4."

The meeting, however, was a success. It was not particularly well attended. There were only 84 present. But those that were there became, for the most part, convinced that Mr. Hamilton was not working just to prevent injury claims. They saw quite clearly that his new department was actually interested in their well-being not only on the job but at home as well. They were probably less aware that he also aimed to avoid preaching safety and to substitute a kind of inspiration for each individual to practice it.

A happy sequel to that 1947 meeting took place at Thayer on October 6 this year. Attendance exceeded the capacity of the largest hall available, and as 833 watched a now-traditional Frisco "family night" program, more than 100 persons had to be turned away. Even more significant than the attendance figures was the fact that those two very skeptical local chairmen are now among the most active supporters of the program.

The nature of a family night meeting is familiar to

Part 7 of a series on CONTEMPORARY RAILROAD MANAGEMENT

This article continues an analysis of contemporary railroad management—its goals, methods and outlook—presented as a case history of the Frisco. The first article in the series appeared in the May 3 *Railway Age*.

most *Railway Age* readers. The system's largest meeting, that held each year at Springfield, Mo., was described in detail in the July 23, 1951, issue. Last year, 38 of them were held in 28 communities to reach a total of 19,271 persons.

The significance of these affairs lies not so much in their ability to make safety palatable. It lies more in their foundation and the very happy manner in which it dovetails into Mr. Hungerford's basic aim of spreading managerial responsibility as widely and deeply into the Frisco organization as possible. Mr. Hamilton and his immediate staff have surprisingly little to do with the organizational details of such a meeting. Most of the planning is done by a safety committee of local supervisors and employees. The department functions mainly in an advisory capacity and offers these committees information and advice only when asked.

The fact that the family meetings are locally planned and conducted points up what is perhaps the most important single characteristic of the entire Frisco safety program: *It is self-energizing.* It is motivated by the interest and spirit of the men on the ground, not by departmental edicts or the desire of an employee or supervisor to please his boss. And because of this, the program covers far more ground in creating accident-prevention consciousness than it could possibly do if the department stood alone as a fountainhead of advice.

While Mr. Hamilton is aware that fellow safety officers on other roads have more than once termed his program a succession of minstrel shows, he is not at all perturbed. In fact, he says he is beginning to see signs of the idea spreading to neighboring roads—especially where employees of other roads have an opportunity to attend a Frisco program.

Safety Committees' Functions

The local safety committees have many duties besides organization of family night programs. Actually they are the prime-mover in the Frisco's on-the-job safety program and for this job they have two-fold duties — seeking out and correcting unsafe *physical conditions*, and seeking out and correcting unsafe *human practices*. This latter, of course, is a much more difficult thing to do tactfully and is thus far less common a responsibility of such committees where they exist on other railroads.

These committees meet at regular intervals. They are to be found in all shops and terminals and at every division headquarters. Membership is chosen by the employees themselves. In time, these committeemen have come to take many active roles in outside safety work. Some have appeared on programs of the National Safety Council's railroad section and the AAR's Safety Section. Some have spoken at Frisco regional meetings and many have been invited to address outside organizations.

Although the Safety Department establishes basic policies for the system safety program, its execution is largely in the hands of these committees and local supervisory officers. The department furnishes each committee with a flow of suitable literature covering not only their railroad work, but home and highway safety as well. It also makes available to them suitable motion pictures and film strips, some of which may be used at public and civic meeting as well as for on-the-job training. The Public Relations Department, through the Frisco newspaper, All Aboard, maintains interest by devoting an entire page each month to the 51-team systemwide safety competition in which the various departments and divisions vie for honors and for President Hungerford's trophy — top among a number of awards offered each year.

All these, however, are merely aids to carrying out a program that derives its basic drive from the employees and supervisors themselves. That the program is effective in its main purpose—sparing lives and suffering—is clearly evident in these few statistics: When Mr. Hamilton first reorganized the department—it had been a one-man affair—the Frisco's casualty ratio stood at 10.75 per million man-hours worked. As the program came into its own, the figure steadily declined to 5.71 in 1952 and 5.50 in 1953. While this latest figure did not win the Frisco some of the national awards it has received in other recent years, it nevertheless evidences the program's ability to keep the Frisco near the top of the nation's railroad safety performance record.

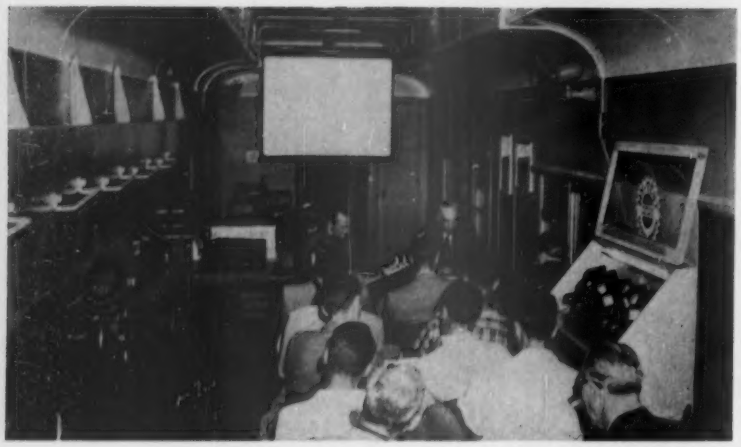
Not less important has been the enormous amount of public good will that has come out of community participation in the family nights and out of the road's

THE DEPARTMENT IS A TRAINING GROUND

One major—and unusual—function of the Frisco's safety department is to help train men for future management.

The safety department's staff includes an assistant superintendent of safety (presently vacant) at St. Louis, safety supervisors at Springfield, Mo., Tulsa, Okla., and Memphis, Tenn., two supervisors of fire prevention, both headquartered at Springfield, plus clerical and office personnel at both St. Louis and Springfield. Men selected to fill the supervisory positions are picked in cooperation with L. B. Clary, the general manager, and the operating vice-president, R. J. Stone, for the safety department is considered an excellent spot from which to learn the many phases of operating department work.

In the seven years that this training program has been in effect, its "alumni" include a terminal superintendent, three division superintendents, three assistant superintendents, two terminal trainmasters and one trainmaster. All were taken from the ranks—from train and engine service, yard service, and car department and, in one instance, from the secretarial force. Several were local chairmen of their labor organization.



NEW THIS YEAR is the Frisco's safety instruction car. Converted from a former sleeper at the Springfield shops, it contains numerous types of hand brakes (seen at the left) switches and couplers, and a steam and air hose rack, all of which employees may operate for practice. Later the car will be equipped with a centralized traffic control board and a set of miniature switches. It has a seating capacity of 35 for screening motion pictures or conducting rules classes and is equipped with its own diesel-powered 110-volt generating system.

continuing effort to promote safe living at home and on the highway. One of the most effective aspects of this community work is the participation of local employees and supervisors as spokesmen for their company. While system publicity or operating safety officers may be present, they are generally in the background.

Thus the family safety night program becomes a ground on which the public meets local Frisco people. And it cannot help but be impressed with the railroaders it meets and the added responsibilities they have voluntarily assumed. This has been evidenced many times when those who have taken a leading role in a family night program have been invited to speak before outside civic and community groups. It has been evidenced, too, in many "Frisco Safety Days" and "Frisco Safety Weeks" proclaimed by local governments in connection with a program and which have resulted in chamber of commerce groups donating prizes to further the affair.

Yet no conscious effort is made by the Frisco to turn family night programs into a public relations spree. Their primary aim was—and remains—to make safety a family affair so that each employee is conscious of his real incentive for safe working habits. And because his railroad has also brought safety training into his home and his community, the Frisco employee works with greater security in the knowledge that his family is better equipped to prevent accidents to themselves.

It is this two-phased home-and-job nature of the Frisco's safety program that gives it its unusual force and effectiveness. And this explains why the program carries on even into the schools of on-line communities where, in 1953, 21,827 students in 68 grade and high schools saw Frisco-sponsored safety films and heard local Frisco officers, supervisors or employees talk. Arrangements for these programs are almost always made by local railroad personnel and, except for occasionally pointing up the hazards of trespassing on railroad property, these programs have little to do with the railroad.

Little has been said here about the supervisor's role in imparting on-the-job safety to his men although, in itself, this is a subject of major proportions. Emphasizing again the company's policy of delegating—rather than centralizing—authority, Mr. Hamilton says: "Our department exists primarily to assist officers and supervisors at all levels and to provide a program for them to work under. The actual safety of the individual employee, however, is the responsibility of his supervisor. I personally believe that the average employee considers his immediate superior—rather than top management—to be 'the Frisco,' because the average man seems to work for his boss, not his company. This means that the sincerity of the supervisor is paramount. Employees cannot be fooled for long—and that holds true not only on a railroad but in any kind of an organization."

Mr. Hamilton readily admits that he and his staff have had "a free hand" in setting their own pattern of work and carrying it out. "Yet we consult frequently with Mr. Hungerford," he says, "because his door is always open and we know he has a keen personal interest in safety work."

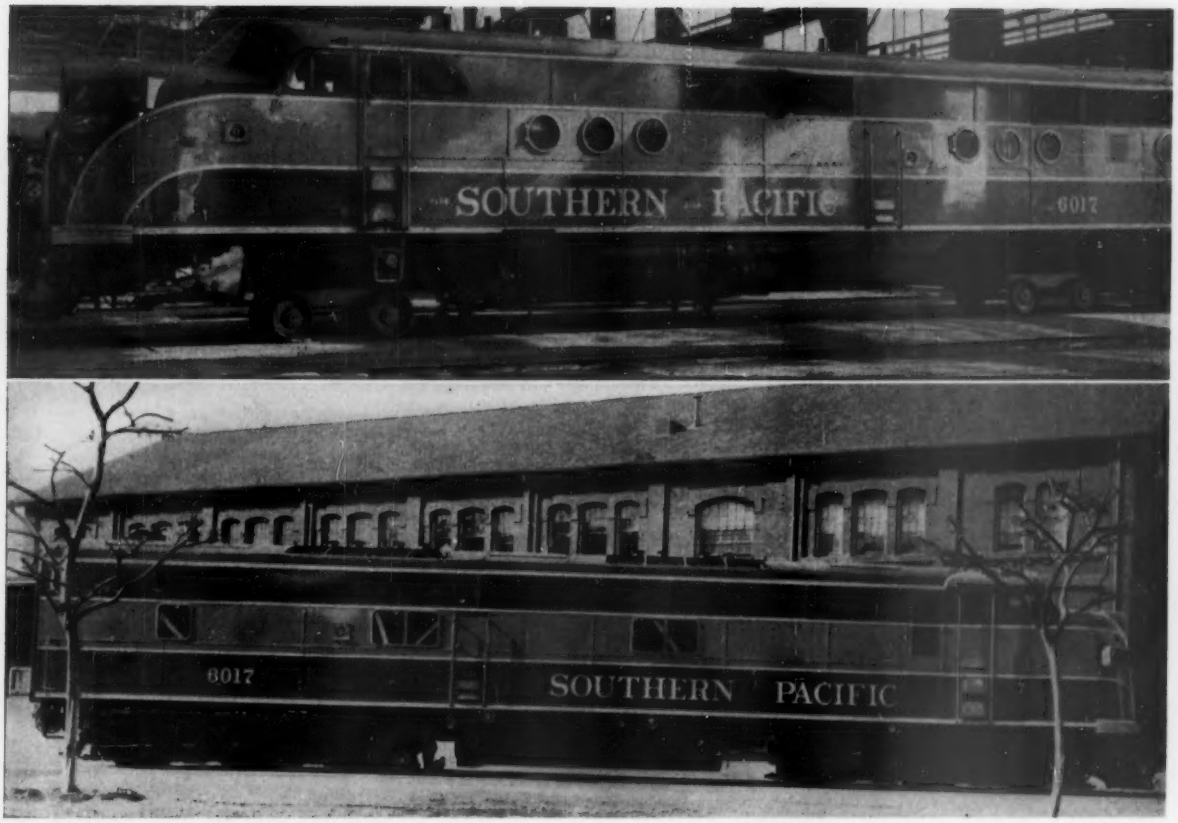
While many facets of the department's work have their counterpart on other railroads, it is, from an overall standpoint, considered to be unusual. In less than seven years the company has been recognized by the National Safety Council and the American Museum of Safety five times. Mr. Hamilton himself has served as chairman of both the National Safety Council's railroad section and the AAR's Safety Section and members of his staff have taken on a host of outside safety work.

Highlights of the Program

In summary, these may be termed the program's most distinguishing factors:

- Its ubiquitous energy (because it comes largely from within rather than from the top).
- Its active—rather than passive—character for most employees (i.e., it is widely participated in, not just looked at or listened to).
- Its sincerity, as evidenced by its volume of non-railroad public safety work.
- Its corner-stoning the basic Frisco policy of building management potential from within the organization through widespread employee activities.
- Its hand-in-glove fitting into Mr. Hungerford's philosophy of building up the individual and respect for his dignity.
- Its knitting together the Frisco "family" of 17,000 scattered employees by providing fellowship and a common goal reached through common experiences.
- Its immeasurable public relations benefits derived through selfless efforts in community and home safety.
- Its appeal to even non-railroad families through the continuing work with school children and family groups.
- Its ability to save lives and suffering while at the same time boosting morale and pride in the company.

That the program has won over the Friseo rank and file is no better illustrated than in the remarks of a recently retired locomotive engineer. Spotting Mr. Hamilton one recent afternoon, he said: "I thought this safety thing would die out when you first started it. It always had before. But I wish now that the company had started your program ten years sooner."



SP DIESEL locomotive No. 6017 before (top) and after conversion at Los Angeles general shops.

How SP Rebuilt Its Oldest Diesel

Southern Pacific diesel locomotive No. 6017 was rebuilt at the Los Angeles general shops early this year. It has since given notably improved performance as well as reliability, as a result of elimination of weaknesses in the original design and inclusion of more recent improved power and control equipment, according to the September issue of the Southern Pacific Bulletin.

This is the oldest SP passenger diesel unit on the road. As SF-1 it was delivered in 1938 and assigned to the jointly operated "City of San Francisco." The locomotive made 3,581,100 miles at the head of this Oakland-Chicago streamliner and other SP named trains until late in 1953 when Los Angeles shop forces started their 69 days' rebuilding work.

The two 900-hp 12-cylinder engines were the only pair of that model on the system, causing a parts procurement headache every time No. 6017 broke down—which was often during recent years, when it was a spare unit in the "Golden State-Sunset Limited" pool.

The locomotive was prepared for a major operation at Los Angeles shops by stripping the long-nosed, porthole-windowed body to the frame, cutting away sections of body supports and roof framing to allow for extensive differences in body design.

The engine deck was redesigned, engine bed center sills were reinforced and frame sections cut away and modified to carry the additional weight of two 1,000-hp 12-cylinder engines, their accompanying main generators, and a new steam generator for car heating. Frame sections were changed to carry all pipes and conduits in the frame.

The cab deck was revamped to allow installation of new brake equipment. Body sections were reinforced and the top of the car body was cut to accommodate standard radiator hatches.

The long nose disappeared when the cab was moved forward and a new short nose was formed and welded by hand, from templates and jigs made from profiles of the postwar diesels. The cab operating compartment was rearranged and fitted with a new control system. Trucks and traction motors were modified to meet the latest specifications.

When the newly painted "Queen Mary" rolled eastward at the head of the "Golden State" on her first post-shopping assignment, the Los Angeles shop forces were publicly credited by Operating Vice-President J. W. Corbett with having done an excellent job of conversion and this tribute proved well deserved. In the first seven months out of shop, the locomotive gave 165,000 miles of trouble-free service.

Operations

Reid Advocates Regional Transport Authorities

"Our great cities must solve their transportation problems or strangle themselves. If urban concentration is desirable and necessary to carry on the affairs of our modern society, the community must be prepared to provide the extensive network of transportation arteries without which the city as we know it could not exist. . . . The transport situation in metropolitan areas will become ever more chaotic until and unless there is an integration of facilities and services."

On that note of warning, William Reid, president of the Hudson & Manhattan, concluded a recent address to the Tax Institute at Princeton, N.J., in which he advocated creation of regional transportation authorities in metropolitan areas.

Six Elements — Such a regional agency, as Mr. Reid sees it, would incorporate six elements:

- Jurisdiction within the entire metropolitan area;
- Responsibility for all local transportation facilities within that area;
- Pooling of revenues and finances;
- Administration by a board responsible to the public;
- Management selected on a merit basis and solely responsible for operation of the transportation system; and
- Deficits, if any, to be defrayed by a regional levy allocated on the basis of population and/or land value.

Federal Aid?—While it would be "desirable in theory," Mr. Reid said, "to concentrate administration and financing of the transit authority within the metropolitan region served," he saw "no valid reason" why it could not, if necessary, be given federal or state aid. "If," he pointed out, "tens of billions of dollars are allocated for urban arterial highways, it would seem reasonable to allocate some funds for improvement of mass transit facilities which carry the bulk of passenger traffic in and around larger cities."

Highway development, "aside from toll roads," should be left, he suggested, "in the hands of elected governmental bodies, but should be planned in cooperation with the authority."

"Dixieland" Streamliner Replaces "Dixie Flagler"

A new name train—the "Dixieland"—has entered the joint Chicago-Florida services of the Chicago & Eastern Illinois, the Louisville & Nashville, the Nashville, Chattanooga & St. Louis, the Atlantic Coast Line and the Florida East Coast.

The stainless steel streamliner replaces the "Dixie Flagler" and operates over the same route with a similar every-third-day schedule; the initial run from Chicago was December 16. Nine new sleeping cars have been placed in each of the two equipment sets used in the service. Each of the cars, built by the Pullman-Standard Car Manufacturing Company, accommodates 24 passengers in four open sections, one compartment, four roomettes and five double bedrooms. Bedrooms, in the center of the car, may be occupied en suite, if desired. Roomettes feature "cut-away" beds so passengers may raise or lower them without opening the aisle door.

Coach, dining and lounge car equipment, while not new, is also of lightweight construction with matching stainless steel exterior. The train carries no headend equipment although there is a dormitory car for the crew.

L&N Lounge Cars—In addition to a share of new sleeping cars for the "Dixieland," the L&N has completed three full-length tavern-lounge cars for service between Cincinnati and New Orleans on the "Pan-American." Named "Kentucky Club," "Alabama Club," and "Tennessee Club," the cars feature murals depiciting scenes from the name state, a replica of the state capital etched in glass panels, wide "picture" windows, and fluorescent lighting. The cars were turned out by the road's South Louisville shops.

Operating Scores Reflect Scope of Diesel's Work

The Interstate Commerce Commission's Bureau of Transport Economics and Statistics has compiled figures showing the extent to which some of the operating averages for diesel-electric locomotives became less favorable as diesels took over the bulk of the motive power work.

Such a trend was expected as diesels got "skim milk" as well as "cream" assignments. Meanwhile, the averages for remaining steam and electric locomotives became more favorable.

The compilation was published in the November issue of the bureau's "Monthly Comment." It showed that average trailing load behind diesels was 2,887 tons during this year's first eight months. That compared with 2,915 tons for the year 1953 and 3,023 tons for 1945.

Average trailing load behind steam locomotives rose from 2,306 tons in 1945 to 2,609 tons in 1953, and 2,646 tons in this year's first eight months. Comparable figures for electric locomotives were 2,993 tons, 3,317 tons and 3,535 tons, respectively.

Like trends were reflected in average train speeds and gross ton-miles per train-hour. As to the latter, diesel averages for 1945 and the first eight months of this year were 61,175 and 55,800, respectively. The steam averages were 35,720 and 42,772, and the electric figures were 49,090 and 70,041.

The bureau's interpretation of these figures included this comment:

"The averages are not necessarily indicative of an inherent improvement in the performance of steam and electric locomotives or of a disimprovement in the performance of diesel-electric locomotives. The approximately 30 and 60 per cent respective decrease in the number of electric and steam locomotives assigned to freight service indicate that those retained would be the largest and most modern locomotives.

"A diesel locomotive, however, may consist of one, two, three or occasionally more units. Presumably the vast expansion of diesel-electric locomotives assigned to the freight service has involved increasing use of single and two-unit diesel-electric locomotives with consequent decreases in average weight per locomotive as diesel power has been further extended to branch lines and, on a few roads, to a point where all other motive power has practically disappeared."

Safety

Factories Safer Than Railroads in 1953

Data on accidents to employees indicate that the 1953 frequency rate (injuries per million man-hours worked) was 14.09 for railroads and 13.4 for manufacturing industries as a whole. The railroads had the edge in 1952 when the rates were 14.17 and 14.3, respectively.

The comparisons were set out in the "Monthly Comment" of the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. The railroad figures came from the bureau's records while those for other industries came from the Bureau of Labor Statistics of the Department of Labor.

The 1953 freqquency rates of transportation industries other than railroads included these: Trucking, 31.5; local bus lines, 11.4; warehousing and storage, 35.5; stevedoring, 74.7.

Briefly . . .

. . . **Those Christmas trees** in observation cars of Illinois Central trains have an unusual significance. They are the first fruit of a six-year-old project aided by the road's agricultural development department to grow Christmas trees on otherwise useless land derelicted by coal strip mining. So far, approximately one-half million trees have been planted in southern Illinois in the program undertaken by the road in cooperation with the Illinois Coal Strippers Association, the University of Illinois, Southern Illinois University and the United Electric Coal Company.

In a troubled world . . . a Star!

The world was troubled when that star first came . . . then, too, dictators in far lands oppressed those who sought the contentment of family, church and their work.

But we still have the STAR. The Star of Bethlehem . . . in our city, our community. In our troubled era, may it guide us in all our relationships in the years to come. May we by prayer, thought and work come to fulfillment of Peace on Earth and Good Will to Men.

In this spirit, we wish to all a Merry Christmas and a Happy New Year. Fairbanks, Morse & Co., 600 South Michigan Avenue, Chicago 5, Illinois.

FAIRBANKS-MORSE

a name worth remembering when you want the best

DIESEL LOCOMOTIVES AND ENGINES • RAIL CARS AND RAILROAD EQUIPMENT • ELECTRICAL MACHINERY • PUMPS • SCALES • WATER SERVICE EQUIPMENT • HAMMER MILLS • MAGNETOS

Traffic

Tariff Study Group Sends Out More Questionnaires

The Railroad's Tariff Research Group has sent out the 22nd and 23rd of the series of questionnaires whereby it is seeking views of interested parties on ways and means of simplifying and otherwise improving tariffs.

Questionnaire No. 22's main question is: How may tariffs containing rules and charges for stopping shipments in transit to complete loading or to partially unload be improved? Two subsidiary questions are: Is it preferable to have the rules for all carriers in a limited number of regional tariffs? Should the method of showing permissible out-of-route movements be standardized and in what manner?

Questionnaire No. 23 asks: Should the publication of general rules permitting alternative application of class and commodity rates be discontinued?

Supply Trade

Goodall Rubber Company and its subsidiary, **Whitehead Bros. Rubber Company,** will be merged on January 1. The latter company will be identified as Whitehead Rubber division of Goodall Rubber Company.

Productive capacity of the Terrell, Tex., plant of **Van der Horst Corporation** will be expanded to take care of increased demand for the company's iron and chromium plating processes in the South and Southwest.

John A. Morgan, general manager of the **Butler Manufacturing Company,** has been elected executive vice-president, and **Walter L. Smith,** chief production manager, has been named vice-president, engineering and production.

T. J. Bromeling has been named manager of industrial sales of **Colson Corporation.** He was formerly assistant sales manager of **Service Caster & Truck Corp.,** assets of which were recently purchased by Colson.

Lamson & Sessions Co. has appointed **Louis W. Beushausen** representative for the New England territory.

The **Van-Packer Corporation** has moved its main office from 209 S. LaSalle st., Chicago, to Bettendorf, Iowa. **O. E. Collins,** assistant general sales manager, has been appointed general sales manager.

T. Clifford Laurent has rejoined **National Pneumatic Company** as sales engineer for its transit and railroad division, at New York.

Milton T. Smith has been elected vice-president and general manager of **Marion Power Shovel Company** and named to a similar position with the **Osgood Company,** a subsidiary. He also was elected a director of both companies. Mr. Smith was previously vice-president in charge of purchases and inventory of **Bucyrus-Erie Company.**

Jerry R. Ludwig has been appointed railroad sales representative of **Keuffel & Esser Co.,** at Chicago.

The **Formica Company** has appointed **Met-L-Wood Corporation,** Chicago, as manufacturing and sales representative to the transportation industry.

Frank H. Fischer, vice-president of the Wood Preserving division of **Koppers Company,** in charge of the eastern region, has been given responsibility for special sales activities throughout the country. **Paul Wayman,** assistant manager, eastern region, has been appointed acting manager. **Douglas Grymes, Jr.,** sales manager for the division, has been promoted to executive assistant to general manager and will also continue as sales manager.

Dana T. Hughes, who has been acting head of the news bureau of **American Locomotive Company,** has been appointed director of information.

Leschen Wire Rope division of **H. K. Porter Company** has moved its Seattle district sales office to 2724 First Avenue South, and its Los Angeles sales office to 6424 East Fleet street.

E. S. McCormick has joined the **Koehring Company** as sales representative for its products and those of subsidiary companies that apply to railroads, with office at Chicago.

Cummins Engine Company has appointed **M. W. Brooks** regional manager for the midwest district, central region, at St. Louis. **H. A. Strohman,** assistant regional manager, eastern region, at New York, has been transferred to the new middle Atlantic office at Harrisburg, Pa.

ROBERT R. KING (left), vice-president, engineering and production, of Paxton-Mitchell Company, has been appointed vice-president and general manager. CHRISTIAN H. PETERSEN (right), sales and service engineer, has been named sales and service manager.

Equipment & Supplies

IC to Spend About $20 Million in '55

The Illinois Central has announced plans for 1955 capital expenditures totaling approximately $20,000,000, about $4,000,000 less than in 1954. The 1955 expenditures include almost $12,000,000 for 78 new diesel locomotive units (*Railway Age,* December 13, page 11); purchase of 100 70-ton hopper cars; equipping 100 freight cars for specialty loading; "comprehensive" repairs to 12,200 freight cars; purchase of 128 track miles of new rail; bridge replacements; and yard improvements.

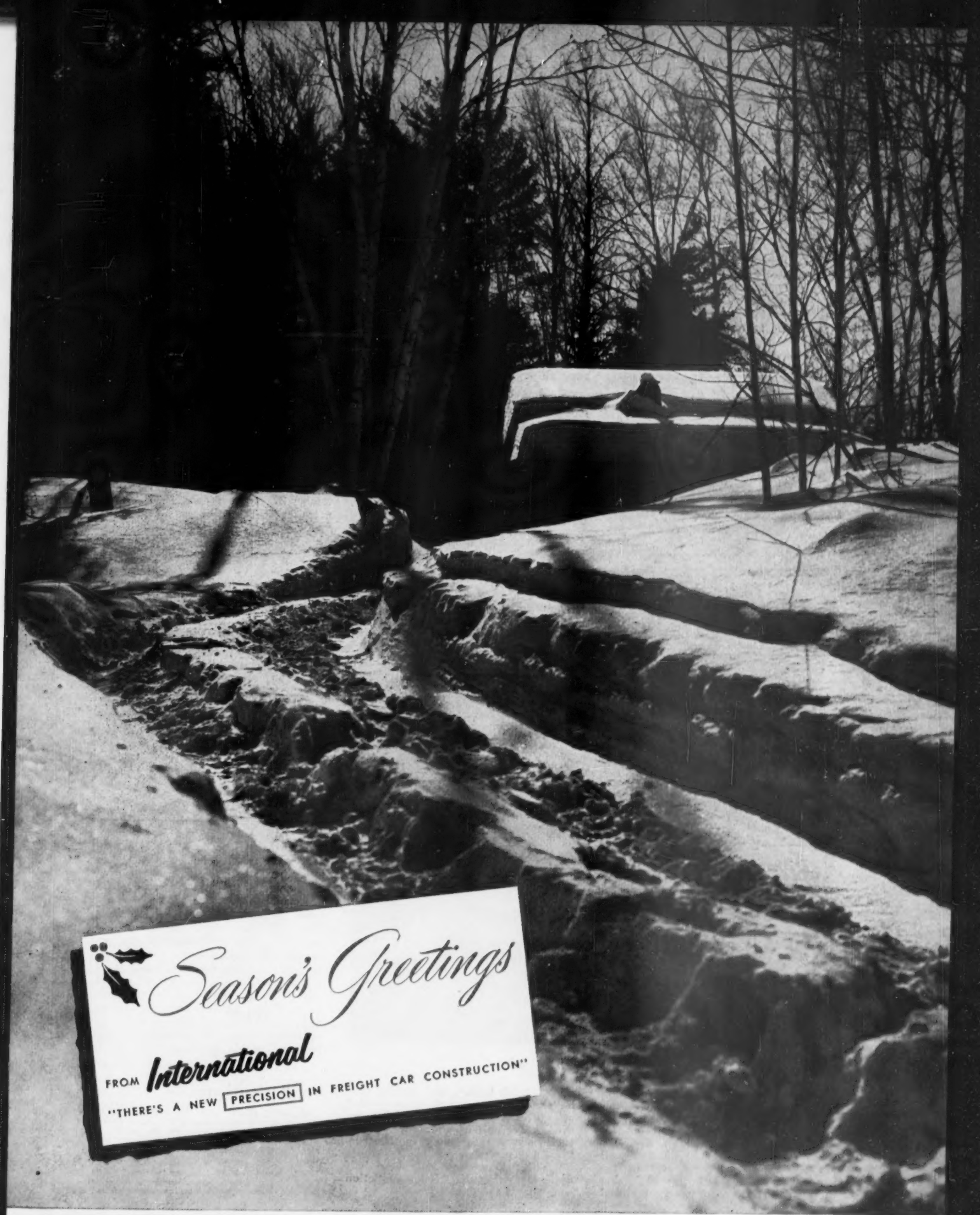
LOCOMOTIVES

The **Virginian** has ordered 18 1,600-hp diesel road-switchers from Fairbanks, Morse & Co. at an approximate cost of $2,900,000. Delivery is scheduled for early 1955.

FREIGHT CARS

The **Great Northern** recently purchased 10 "airslide" covered hopper cars from General American Transportation Corporation at an approximate total cost of $121,000. The cars have been delivered.

The **Oliver Iron Mining Division** of **U.S. Steel Corporation** has



INTERNATIONAL STEEL COMPANY RAILWAY DIVISION
EVANSVILLE 7, INDIANA.

ordered 30 100-ton automatic dump cars from the Baldwin-Lima-Hamilton Corporation. Delivery of the cars, to be used for open pit taconite mining service in Minnesota, is scheduled for April 1955.

PASSENGER CARS

The **Railway Express Agency** has ordered 300 express refrigerator cars from the General American Transportation Corporation at an estimated unit cost of $20,449. REA's inquiry for 300 to 600 such cars was reported in *Railway Age*, May 3, page 48.

New Facilities

Arkansas & Louisiana Missouri.—The ICC, through Commissioner Mahaffie, has extended the commencement and completion dates of two proposed spurs of this road at Spencer, La. The commission reported that the Olin Mathieson Chemical Corp. does not intend to begin for another six months building of a new pulp mill at Spencer which is to be served by the A&LM segments (*Railway Age*, November 16, 1953, page 123). The new dates for commencement and construction are now set for July 1 and December 31, 1955, respectively.

Atlantic Coast Line.—Division 4 of the ICC has authorized this road to construct a 1.45-mile spur from its main line connection at Perry, Fla., to the Buckeye Cellulose Corp. woodpulp plant at Foley.

Canadian Pacific.—Construction of a new diesel servicing shop is underway at the CPR's St. Luc yards in Montreal. An important feature of the shop, scheduled to open next summer, will be a wheel-truing machine, the road announces. The new shop will have an area of about 20,000 sq ft.

Missouri Pacific.—The St. Louis Federal District Court has authorized the MP to spend $1,286,500 to complete a grade and curvature reduction program on the six-mile line between Dodson, Mo., and Martin City.

Pennsylvania.—A contract for elimination of a grade crossing at Franklin Park boulevard in North Brunswick Township, N.J., where it crosses the PRR's main line, has been awarded to the Braun & Stuart Co., Philadelphia. The $405,019 contract provides for construction of a two-lane concrete-steel overpass and approaches, with pedestrian stairways on the west side of the overpass leading to eastbound and westbound platforms. The entire grade-elimination project will cost an estimated $775,270, of which New Jersey will pay 85% and the railroad 15%. It is expected the project will be completed in about a year.

Pennsylvania. — This road has awarded a contract to the Dravo Corporation, Pittsburgh, for construction of an ore-unloading machine at the railroad's new ore pier at Greenwich Point, Philadelphia. Formally dedicated last August 5, the new $10,000,000 pier already has two unloaders (*Railway Age*, August 16, page 10, and March 15, page 45). The new unloader, to be capable of handling up to approximately 25 tons of ore "in one bite," will make the pier one of the largest iron ore unloading facilities on the east coast.

Seaboard Air Line.—The new $7,000,000 hump classification yard at Hamlet, N.C., went into operation November 29, although formal dedicatory exercises will not be held until the first of next year (*Railway Age*, June 22, 1953, page 30). Construction of the yard was begun in the spring of 1953. The yard, five miles long and generally about half a mile wide, is situated on a 600-acre tract of land about a mile north of Hamlet.

White Pass & Yukon.—A contract will soon be negotiated for construction of a Highway Division office, garage and workshop building, to cost an estimated $125,000, at Whitehorse, Y.T. The company has just completed a $30,000 winterized diesel storage plant there.

MAYBE IT WON'T BE FINISHED!

The New York Central bridge being built across the Harlem river in New York City may never be completed, Robert R. Young, NYC chairman, indicated recently (*Railway Age*, December 13, page 15). Mr. Young said he thinks the bridge will cost too much, its taxes will be too high, that it probably was unnecessary to build a vertical-lift bridge, and, finally, that he is not sure a new bridge was needed at all. First track (above, left), on the bridge, one of four which eventually are to cross the twin-lift structure, was placed in service November 28. The bridge—now just about half done—is scheduled for completion early in 1956.

Abandonments

Delaware, Lackawanna & Western.—The ICC has postponed the December 20 effective date of its order authorizing abandonment of this road's Christopher Street ferry service between Hoboken, N.J., and New York City (*Railway Age*, November 22, page 36). The postponement was occasioned by a petition for reconsideration of the order filed December 9 by a "Citizens Transit Committee" which argued for annulment of the order or, in its stead, an 18-month suspension, during which time a trial of the ferry operation using a "substantial rate increase" would be made.

Authorizations

ATLANTIC COAST LINE.—To abandon a 3.75-mile segment of its Sanford & Everglades branch from a point near Stevens, Fla., to Mecca.

To abandon its Black Hammock spur running 1.8 miles between Nshob, Fla., and Iowa City.

EAST BROAD TOP.—To abandon its 2.5-mile Coles Valley branch extending from its main line connection of Coles Junction, Pa., to Joller.

Financial

Hudson & Manhattan.—*Trustee Appointed.* — Herman T. Stichman, commissioner of housing of the state of New York since 1944, has been appointed trustee of the H&M by New York Federal Judge Lawrence E. Walsh. Judge Walsh recently ordered the H&M to reorganize under Chapter 10 of the Bankruptcy Act (*Railway Age*, December 13, page 72).

Jefferson Southwestern.—*Joint Use by Three Roads.*—The Chicago & Eastern Illinois, Illinois Central and Missouri Pacific trustee have been authorized by Division 4 of the Interstate Commerce Commission to enter an agreement for joint use of the facilities of this road. By order of the commission (*Railway Age*, June 19, 1952, page 72) they were authorized to acquire the Jefferson Southwestern with each obtaining one-third of its capital stock. The three roads will have equal trackage rights and the right to use in common with each other all facilities of the Jefferson. Each will present two nominees for a new board of directors for the Jefferson.

Nashville, Chattanooga & St. Louis.—*Trackage Rights.*—Division 4 of the ICC has authorized this road to acquire trackage rights over 5.3 miles of the Louisville & Nashville (*Railway Age*, October 11, page 11) at Radnor yard, Nashville, Tenn.

St. Louis Southwestern - Missouri Pacific.—*Trackage Rights.* — Division 4 of the ICC has authorized renewal for 25 years of trackage rights agreements (*Railway Age*, September 13, page 10) under which the Cotton Belt operates over 119 miles of MP track from Valley Junction, Ill., to North Junction, and the MP operates over 110 miles of the Cotton Belt from Illmo, Mo., to Paragould, Ark. An approved amendment of an existing lease of the Cotton Belt with Gray's Point Terminal provides for operation by the MP over 13 miles of track owned by the terminal company for the duration of the trackage right agreement.

Southern.—*Stock Purchase.* — Division 4 of the ICC has approved purchase by this road of 7,506 shares of Southwestern Construction Company capital stock from the Baltimore & Ohio. By bringing the Southern's holdings in Southwestern to 52.5%, the purchase will give Southern further control of the Cincinnati, New Orleans & Texas Pacific, 69% of whose common stock is owned by Southwestern. Heretofore, Southern's control of CNO&TP has been through its own holdings of 16% of Southwestern's capital stock and through its control of the Alabama Great Southern, which holds a 47.5% interest in the construction company. The 7,506 B&O shares constituted a 36.5% interest in Southwestern. Division 4 also authorized issuance by Southern of a $15,000,000 promissory note, secured by its Southwestern holdings (including the shares to be obtained from the B&O) and its 3,611 shares of CNO&TP, to evidence a loan of like amount, proceeds of which will be used to make the purchase (*Railway Age*, November 1).

Southern San Luis Valley.—*Acquisition.*—Division 4 of the Interstate Commerce Commission has authorized this road to acquire the properties of the San Luis Valley Southern which extends 31.5 miles between Jarosa, Colo., and Blanca where it connects with the Denver & Rio Grande, Western. The stock of the San Luis Valley Southern was purchased in April by W. W. McClintock, G. M. Oringdulph and John Stribling. Mr. McClintock and Mr. Oringdulph obtained a loan of $135,000 to finance the purchase in part and a balance of $40,000 was supplied in cash and negotiable securities by the three men. The SLVS was dissolved and its assets then sold to the Southern San Luis Valley for $175,000. The road was authorized by Division 4 to issue 40,000 shares of no-par common stock at a $1 per share stated value to Messrs. Oringdulph, McClintock and Stribling to repay them for $40,000 expended. Further authority was granted to issue a secured promissory note for $135,000 to Bankers Life & Casualty Co. to discharge a collateral note issued by Mr. McClintock and Mr. Oringdulph to evidence the loan made to them in that amount.

Securities

Authorizations

BANGOR & AROOSTOOK.—To assume liability for $2,850,000 of equipment trust certificates to finance, in part, purchase of 350 all-steel refrigerator cars at an estimated total cost of $3,675,000 (*Railway Age*, October 11, page 12). Division 4 approved sale of the certificates at 2¾% interest for 99.019—the bid of Halsey, Stuart & Co.—which will make the annual cost of the proceeds to the road approximately 2.92%. Dated November 1, 1954, the certificates will mature in 15 annual installments of $190,000 each beginning November 1, 1955. They were reoffered to the public at prices yielding from 1.45 to 3%, according to maturity.

LOUISVILLE & NASHVILLE.—To issue $30,350,000 of 50-year first and refunding mortgage bonds, series I, to redeem a like amount of 4% bonds issued under its Atlanta, Knoxville & Cincinnati Division mortgage maturing May 1, 1955 (*Railway Age*, September 20, page 15). Division 4 approved sale of the bonds at 3⅜% interest for 98.2—the bid of White, Weld & Co. and Salomon Bros. & Hutzler and 24 associates—which will make the annual cost of the proceeds to the road approximately 3.45%. The bonds were reoffered to the public at 99.17.

NEW YORK, CHICAGO & ST. LOUIS.—To assume liability for $1,020,000 of equipment trust certificates to finance in part 150 50-ton box cars costing an estimated $1,275,970 (*Railway Age*, October 4, page 16). Division 4 approved sale of the certificates with a 2½% interest rate, at 99.06—the bid of R. W. Pressprich & Co. and three associates, which will make the annual cost of the proceeds to the road approximately 2.65%. The certificates were reoffered to the public at prices yielding from 2.65% to 2.75%, according to maturity.

NEW YORK, NEW HAVEN & HARTFORD.—To pledge $1,000,000 of first and refunding mortgage 4% bonds, series A, as collateral security for a short-term $2,500,000 note issued to the Manufacturers Trust Company to finance in part purchase of the entire issue of Boston & Providence 5% debentures for $3,320,100. The note matures December 30, 1954. Division 4 also authorized the New Haven to pledge and repledge $14,000,000 of first and refunding mortgage bonds, series A, and $10,000,000 of general mortgage income 4½% bonds, as collateral security for any notes to be issued, to reimburse its treasury and provide for payment of the Trust Company note at maturity.

RAILWAY EXPRESS AGENCY.—To issue $9,750,000 of promissory notes as part of an arrangement to finance purchase of 3,000 motor trucks (*Railway Age*, October 4, page 70). Funds to pay for the trucks will be obtained through Salomon Bros. & Hutzler from a group of financial institutions at an interest rate of 2¼% plus a fee of one-fourth of one per cent for Salomon Bros. The notes will be further evidence (in addition to conditional sales agreements) of the debt involved. The sales agreements will be executed by REA with the truck manufacturers and assigned by them to the Salomon Bros. group.

ST. JOHNSBURY & LAMOILLE COUNTY.—To issue 390 shares of $100-par common stock to be held for possible sale (subject to commission approval) to the road's parent, Eastern Magnolia Talc Company. Pursuant to an understanding whereby a shipper over the line, Ruberoid Company, will purchase a like number of previously authorized shares, Eastern would buy the new stock at par if the road needs additional funds in the future (*Railway Age*, October 4, page 63).

Applications

CHICAGO, BURLINGTON & QUINCY.—To assume liability for $4,800,000 of equipment trust certificates to finance in part acquisition of the equipment listed below.

	Description and Builder	Estimated Unit Cost
150	refrigerator cars (Pacific Car & Foundry Co.)	$ 10,500
100	Airslide covered hopper cars (General American Transportation Corporation	11,700
200	70-ton covered hopper cars (Burlington Equipment Company)	6,500
100	box cars (Burlington)	9,500
3	stainless-steel dome coaches (Budd)	235,000
3	stainless-steel dome lounge car (Budd)	340,000

The certificates, dated December 1, would mature in 30 semi-annual installments. They would be sold by competitive bids which would fix the interest rate.

ILLINOIS CENTRAL.—To assume liability for $8,700,000 of equipment trust certificates to finance in part purchase of 70 1,750-hp diesel-electric road-switching locomotives from the Electro-Motive Division of General Motors Corporation, at an estimated unit cost of $167,254 and a total estimated cost of $11,707,800. The securities, dated January 1, 1955, would mature in 30 semiannual installments of $290,000 each, beginning July 1, 1956. They would be sold by competitive bidding, with interest to be determined by such bidding.

MISSOURI PACIFIC.—To assume liability for $4,575,000 of series YY equipment trust certificates to finance in part the acquisition of 36 diesel-electric road switching locomotives—14 with 1,750 hp. from the Electro-Motive Division, General Motors Corporation, and 22 with 1,600-hp. from the American Locomotive Company. The estimated total cost of the equipment is $5,780,404. The certificates would be sold on the basis of competitive bids which would fix the interest rate. They would mature in 15 annual installments of $305,000 each, beginning January 1, 1956.

NEW YORK, NEW HAVEN & HARTFORD.—To assume liability for $3,345,000 of equipment trust certificates to finance in part purchase of 10 4,000-hp rectifier-type electric locomotives from the General Electric Company at an estimated unit cost of $407,500 and a total estimated cost of $4,477,000. The certificates, dated January 1, 1955, would mature in 15 annual installments of $223,000 each, beginning January 1, 1956. They would be sold by competitive bidding, with interest to be determined by such bidding.

(*Continued on page 42*)

U.S. Steel bolted heat-treated crossing, after one year's heavy-duty service.

IN JUST ONE YEAR . . .

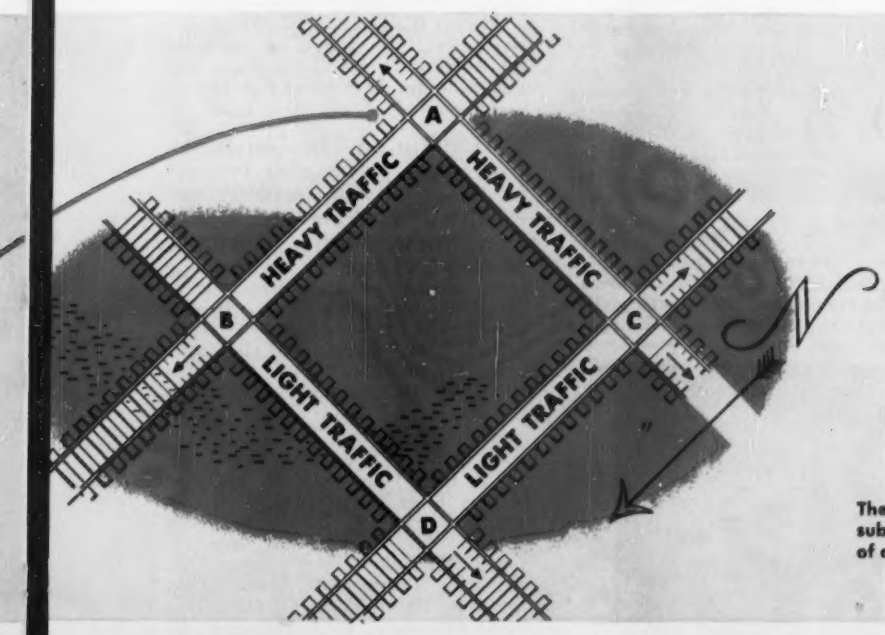
USS Heat-treated Crossing proves superiority over other crossings

THESE four crossings were installed at a major eastern railroad crossing in the Spring of 1953. Of the four, one was a U.S. Steel heat-treated bolted crossing and the others were of a competitive type and manufacture.

After one year of service, the crossings were carefully examined for wear. The USS heat-treated crossing—although it had been subjected to the heaviest traffic conditions (see diagram)—showed less wear than the other crossings.

The full heat treatment of rails, pioneered by U.S. Steel, not only increases their hardness and resistance to wear; it increases their strength, toughness, and resistance to impact. Moreover, these properties are imparted not only to the surface of the rail head, but to the entire rail including the web and the base. Such superior qualities provide longer life for trackwork, resulting in considerable savings to the railroad using the product.

For further information, write to United States Steel Corporation, 525 William Penn Place, Room 4551, Pittsburgh 30, Pennsylvania.



A. USS Heat-treated Crossing

1. South to North Traffic. Loaded coal trains. 35 MPH freights heavy in summer, light in winter, plus one local freight daily.
2. East to West and West to East. Two 70 MPH passenger and four 50 MPH freights daily. One local freight. (High speed traffic causes as much or more wear than heavy tonnage.)

B. Competitive Type Crossing

1. South to North Traffic. Same as crossing "A"-1, above.
2. East to West Traffic. Very light (siding traffic only).

C. Competitive Type Crossing

1. North to South traffic. Empty coal trains and one local freight daily.
2. East to West and West to East traffic. Same as crossing "A"-2, above.

D. Competitive Type Crossing

1. North to South traffic. Same as crossing "C"-1, above.
2. East to West traffic. Same as crossing "B"-2, above.

The combination of heavy freight and high-speed passenger trains subjects the USS heat-treated bolted crossing to the heaviest traffic of all described above.

USS

STEEL

TRACKWORK

UNITED STATES STEEL CORPORATION, PITTSBURGH • TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA.
COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO • UNITED STATES STEEL EXPORT COMPANY, NEW YORK

Securities

(Continued from page 39)

RAILWAY EXPRESS AGENCY.—To issue $6,250,000 of promissory notes as part of an arrangement to finance purchase of 300 express refrigerator cars from General American Transportation Corporation at an estimated unit cost of $20,449. Funds to pay for the equipment will be obtained through Salomon Bros. & Hutzler from a group of financial institutions on the following basis: Five-sixths of the purchase price at 2¼ interest, payable in 20 equal quarterly installments; and the balance (one-sixth) at 2¾% interest payable in 75 quarterly installments, the payments beginning three months after delivery of the cars, scheduled for the first half of 1955. An additional one-fourth of 1% would be paid Salomon Bros. as their fee. The notes will be further evidence (in addition to conditional sales agreements) of the debt involved. The sales agreements will be executed by REA with General American and assigned by them to the Salomon Bros. group.

REA informed the ICC in its application that it has been authorized by the office of Defense Mobilization to amortize 85% of the cost of the equipment over a five-year period.

SEABOARD AIR LINE.—To assume liability for $5,010,000 of equipment trust certificates to finance in part the following freight cars costing an estimated $6,701,496.

	Description and Builder	Estimated Unit Cost
500	50-ton box cars (ACF Industries, Inc.)	$6,935
400	50-ton box cars (Pullman-Standard Car Manufacturing Company)	6,075
100	70-ton hopper cars (Bethlehem Steel Company)	7,135

The certificates, dated December 1, 1954, would mature in 30 semiannual installments of $167,000 each beginning June 1, 1955. They would be sold by competitive bidding with interest to be determined by such bidding.

TEXAS & PACIFIC.—To assume liability for $1,350,000 of equipment trust certificates to finance in part the following equipment costing an estimated $1,883,454:

	Description and Builder	Estimated Unit Cost
150	50-ton all steel boxcars (Texas & Pacific Marshall shops)	$ 6,972
20	50-ton all steel insulated boxcars (T&P)	13,081
16	50-ton all steel boxcars (T&P)	11,181
14	50-ton all steel, doubledoor boxcars (T&P)	13,217
15	all steel cabooses (T&P)	14,140

The certificates, dated January 1 would mature in 10 annual installments of $150,000 each beginning January 1, 1956. They would be sold by competitive bidding, the interest rate to be determined by such bidding.

Security Price Averages

	Dec. 14	Prev. Week	Last Year
Average price of 20 representative railway stocks	81.23	81.94	58.11
Average price of 20 representative railway bonds	97.41	97.44	90.76

Dividends Declared

ALLEGHENY & WESTERN.—$3, semiannual, payable January 1 to holders of record December 20.

CANADIAN PACIFIC.—common, 75¢, payable February 28 to holders of record December 30.

CHICAGO GREAT WESTERN.—common, 75¢; 5% preferred, 62½¢, quarterly; both payable December 31 to holders of record December 20.

DETROIT, HILLSDALE & SOUTH WESTERN.—$2, semiannual, payable January 5 to holders of record December 23.

EAST PENNSYLVANIA.—$1.50, semiannual, payable January 18 to holders of record December 31.

LAKE SUPERIOR & ISHPEMING.—35¢, quarterly, payable January 18 to holders of record January 3; extra, 35¢, paid December 15 to holders of record December 1.

MAHONING COAL.—common, $7.50, payable December 30; 5% preferred, $1.25, semiannual, payable January 3; both for holders of record December 20.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE.—25¢, payable December 31 to holders of record December 15.

NORTHERN PACIFIC.—75¢, quarterly, payable January 26 to holders of record January 4.

NORWICH & WORCESTER.—8% preferred, $2, quarterly, payable January 3 to holders of record December 15.

PITTSBURGH & LAKE ERIE.—$1.50, quarterly, payable January 15 to holders of record December 17.

PROVIDENCE & WORCESTER.—$2.50, quarterly, payable December 31 to holders of record December 13.

SEABOARD AIR LINE.—$1, quarterly, payable December 27 to holders of record December 17.

TENNESSEE, ALABAMA & GEORGIA.—35¢, payable December 24 to holders of record December 6.

TEXAS & PACIFIC.—$1.25, quarterly; extra, $3; both payable December 31 to holders of record December 27.

WESTERN MARYLAND.—7% first preferred, payable December 30 to holders of record December 22 for quarters ended June 30, September 30, December 31, and March 31, 1955. In an accompanying statement, the railway said "if and when the company's plan of stock modification becomes effective," the four $2.50 quarterly dividend payments will constitute the fourth, fifth, sixth and seventh quarterly dividends for quarters ended June 30 and September 30, 1954, and quarters ending December 31, 1954, and March 31, 1955, of $1.25 a share on the proposed issue of new 5% first preferred stock, which will be dated July 1, 1953, and issued in the ratio of two shares for each share of present 7% first preferred. In September and December 1953, and July 1954, similar quarterly dividends of $2.50 each were declared, to be applicable, if the plan is approved, as the first, second, and third quarterly dividends, respectively, of $1.25 each on the proposed new 5% first preferred stock.

Railway Officers

NC&StL's Tate Becomes New Haven Traffic Chief

William K. Tate, traffic vice-president of the Nashville, Chattanooga & St. Louis, was, on December 15, elected vice-president, freight traffic, of the New Haven.

Mr. Tate has been a leader among freight traffic executives in development of rates to meet competitive conditions—and readers of this paper are familiar with his approach to the subject (e.g., issue of August 2, page 16).

In his 57th year, Mr. Tate's entire railroad career up to now has been with the NC&StL, where he has served continuously since 1917, except for brief Army service in 1918. Educated as an engineer at Vanderbilt University, Mr. Tate was in the engineering department until 1929, when he was appointed industrial engineer. In 1937 he was named assistant to the head of the traffic department, and has headed the department since 1946.

William K. Tate

CANADIAN NATIONAL.—George Herbert Lash has been appointed assistant to president at Montreal (*Railway Age*, November 8, page 39).

C. H. Ramsdell Named NYC Director of Advertising

Clifford H. Ramsdell has been appointed director of advertising of the New York Central System. Mr. Ramsdell has been associated with the Federation for Railway Progress—founded by Robert R. Young, NYC chairman—since 1947. He served as editor of the federation's monthly magazine and also held the office of secretary-treasurer.

BAMBERGER.—Howard B. Olsen, assistant auditor, has been appointed auditor, with headquarters as before at Salt Lake City.

CANADIAN PACIFIC.—William McEnroe, assistant to treasurer, has been named assistant treasurer at Montreal, succeeding **G. A. Bracegirdle,** who has retired after 45 years' service. **J. H. Norris,** chief clerk, succeeds Mr. McEnroe.

J. Arnott, purchasing agent at Winnipeg, has been transferred to Vancouver, effective January 1, succeeding **S. V. T. Jeffery,** who is retiring after more than 41 years of service. **E. O'N. Furlong,** purchasing agent at Victoria, B. C., has been transferred to Calgary, Alta., succeeding **J. H. Baker,** who succeeds Mr. Arnott at Winnipeg. **M. Mainwaring** succeeds Mr. Furlong as purchasing agent at Victoria. **L. A. Howe, P. G. Clendenning** and **R. C. Murdoch** have been appointed assistant purchasing agents at Winnipeg, Toronto and Montreal, respectively.

DENVER & RIO GRANDE WESTERN.—R. Knox Bradford,

vice-president at Salt Lake City, has been named vice-president—traffic at Denver, succeeding **Fred C. Hogue,** who has retired after 45 years of service. Mr. Bradford joined the road in 1923 as staff officer to receiver. He

R. Knox Bradford

advanced through a number of positions, and, following a year's leave of absence to serve as examiner for the Railroad division of the Reconstruction Finance Corporation, was named assistant general manager in 1939. In 1942 he was appointed executive assistant to trustees and in 1947 was elected vice-president.

William M. Carey, general freight traffic manager at Denver, will retire December 31, after 47 years of service.

EASTERN RAILROADS (Trunk Line-Central Passenger Committee).—Vanderbilt Armold will retire as chairman of this committee, effective January 1.

FORT WORTH & DENVER.—Roy L. Lassiter has been appointed district passenger agent at Dallas, Tex., succeeding **Robert L. Styers,** promoted. **Kenneth B. Peckenpaugh,** traveling passenger agent, has been promoted to district passenger agent, with headquarters as before at Amarillo, Tex.

FRISCO.—J. E. Gilliland, assistant to president in charge of development at St. Louis, has been appointed to the newly created position of assistant vice-president—traffic; **H. A. Baker,** assistant to president at Memphis, succeeds Mr. Gilliland; **P. J. Schmitz,** superintendent, Northern division at Fort Scott, Kan., succeeds Mr. Baker. **D. E. McKeithen,** traffic manager at Chicago, has been appointed to the newly created position of assistant to president at Kansas City. **C. A. Bergmann,** traffic manager at Pittsburgh, succeeds Mr. McKeithen, and **H. H. Knuth,** general agent at Buffalo, replaces Mr. Bergmann. **W. R. Allen,** superintendent of the River division at Chaffee, Mo., succeeds Mr. Schmitz as superintendent of the Northern division; **J. K. Beshears,** superintendent of the Central division at Fort Smith, Ark., replaces Mr. Allen; **H. J. Lovelady,** assistant superintendent of the Northern division at Neodesha, Kan., succeeds Mr. Beshears; **A. C. Hart,** terminal trainmaster at Kansas City, succeeds Mr. Lovelady; and **E. R. Pike,** assistant general yardmaster at Birmingham, succeeds Mr. Hart.

Malvin L. Shaffer, locomotive fireman and engineman, has been named safety supervisor at Tulsa, succeeding **T. F. Norvell,** who has been transferred to St. Louis.

GREAT NORTHERN. — E. F. Oviatt, division superintendent at Klamath, Ore., has been transferred to Superior, Wis., succeeding the late **W. R. Minton.** Mr. Oviatt's successor is **W. P. Coliton,** trainmaster at Seattle.

HOBOKEN SHORE.—The name of the Hoboken Manufacturers Railroad has been changed to Hoboken Shore Railroad.

ILLINOIS TERMINAL.—William A. Nelson, Jr., assistant to president, has been appointed assistant to vice-president—traffic at St. Louis.

CHICAGO & NORTH WESTERN.—H. H. Magill, superintendent of motive power (above), has been advanced to assistant chief mechanical officer at Chicago, while W. P. Miller, assistant superintendent motive power, system lines (below), succeeds him *(Railway Age,* October 25, page 46).

MISSOURI PACIFIC.—As noted in *Railway Age,* November 1, page 72, G. L. Eastman, assistant freight traffic manager of the MP at St. Louis, has been named freight traffic manager of the Missouri-Illinois at that point.

MAINE CENTRAL.—Horace Foster has been elected comptroller and treasurer, effective April 1, 1955. Mr. Foster has resigned as assistant to vice-president — passenger department, of the Boston & Maine to act as assistant to comptroller and assistant to treasurer of the MC until April 1, when he will assume his full title, upon retirement of **Horace Woodbury,** comptroller, and **Ralph Lunt,** treasurer. Mr. Foster was born in Somerville, Mass., and was graduated from Boston University in 1934 with a B.S. degree in education. He was employed in a Boston bank from 1935 to 1942, when he joined the B&M in the auditor of freight receipts department. Mr. Foster was in military service from 1943 to 1946, returning to the B&M as chief clerk to assistant to vice-president—accounting. He later served as chief clerk and statistician and assistant to vice-president—accounting, becoming assistant to vice-president—passenger department last January.

Richard M. Aylward has been appointed assistant publicity manager and editor-in-chief of the road's magazine. Mr. Aylward was formerly advertising manager of the B&M.

NORTHERN PACIFIC. — Harry W. Byerly, farmland agent at St. Paul, retired November 30 after 44 years of service.

SOUTHERN PACIFIC. — J. C. Stephenson has been appointed assistant manager of personnel at San Francisco.

SOUTHERN PACIFIC TRANSPORT COMPANY. — C. C. King has been appointed assistant general manager at Houston, Tex.

TENNESSEE, ALABAMA & GEORGIA.—Walter Donaldson has been appointed general agent at Chattanooga, Tenn.

CLASSIFIED DEPARTMENT

FOR SALE
RAILWAY EQUIPMENT
Used—As Is—Reconditioned

RAILWAY CARS
All Types
"Service-Tested"

FREIGHT CAR REPAIR PARTS
For All Types of Cars

LOCOMOTIVES
Diesel, Steam, Gasoline, Diesel-Electric

RAILWAY TANK CARS and STORAGE TANKS
6,000 - 8,000 and 10,000-gallon
Cleaned and Tested

CRANES
Overhead and Locomotive

RAILS
New or Relaying

IRON & STEEL PRODUCTS, INC.
"ANYTHING containing IRON or STEEL"

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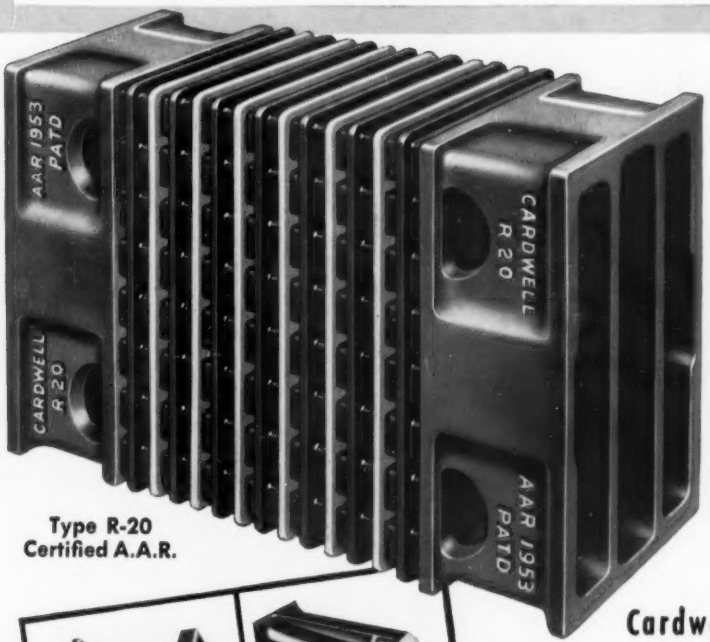

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